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<211> 3858

<212> DNA

<213> Homo sapiens

<400> 164

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<210> 185

<211> 3038

<212> DNA

<213> Homo sapiens

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<211> 1994

<212> DNA

<213> Homo sapiens

<400> 186

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<210> 187

<211> 2109

<212> DNA

<213> Homo sapiens

<400> 187

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<210> 188

<211> 1783

<212> DNA

<213> Homo sapiens

<400> 188

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<211> 1687

<212> DNA

<213> Homo sapiens

<400> 189

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<211> 3686

<212> DNA

<213> Homo sapiens

<400> 190

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<211> 3152

<212> DNA

<213> Homo sapiens

<400> 195

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<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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<211> 1848

<212> DNA

<213> Homo sapiens

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<211> 1827

<212> DNA

<213> Homo sapiens

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aggcctcgca cgtcattgga gtattcatac tggagagaaa ccttacaaat gtaatgagtg  1740

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<210> 209

<211> 1919

<212> DNA

<213> Homo sapiens

<400> 209

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<210> 210

<211> 2184

<212> DNA

<213> Homo sapiens

<400> 210

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gctgaatgat ggacccttca tgccagtgct gggatttggc acttatgctc ctgatcatac  180

tcccaaaagc caggctgccg aggccaccaa agtggctatt gacgtaggct ccgccatat   240

tgattcagca tacttatacc aaaatgagga ggaggttgga caggccattt gggagaagat  300

cgctgatggt accgtcaaga gagaggaaat attctacacc atcaagcttt gggctacttt  360

ctttcgggca gaattggttc acccggccct agaaaggtca ctgaagaaac ttggaccgga  420

ctatgtagat ctcttcatta ttcatgtacc atttgctatg aagggttctt cctgagagag  480

gcagatttga gtgaggtgca taggattgcc aaaactttcc ctgggaaaga attactgcca  540

aaggatgcca gtggagagat tattttagaa actgtggagc tttgtgacac ttgggaggcc  600
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acacagtgga agcccaggcc aggtcgccct gcgctaccag ctgcagcggg gagtggtggt      840

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gttacaattg taagtgatgc ttgtagattc tctcacaggc tgttttctgt agtatgcagg     1020

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<210> 211

<211> 1946

<212> DNA

<213> Homo sapiens

<400> 211

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<211> 3538

<212> DNA

<213> Homo sapiens

<400> 212

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tccctatgac gtccagcatg tagacatcga ttacatgaac cggaagctgg atttcaccct 660

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<211> 2079

<212> DNA

<213> Homo sapiens

<400> 213

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<211> 1611

<212> DNA

<213> Homo sapiens

<400> 214

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<211> 3850

<212> DNA

<213> Homo sapiens

<400> 242

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<211> 3203

<212> DNA

<213> Homo sapiens

<400> 244

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<211> 3938

<212> DNA

<213> Homo sapiens

<400> 246

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<213> Homo sapiens

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<211> 4498

<212> DNA

<213> Homo sapiens

<400> 248

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<400> 249

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<210> 257

<211> 1986

<212> DNA

<213> Homo sapiens

<400> 257

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actccc                                                             1986
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<210> 258

<211> 2098

<212> DNA

<213> Homo sapiens

<400> 258

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<210> 259

<211> 2332

<212> DNA

<213> Homo sapiens

<400> 259

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gcaaatgctt caggcaattc tgttatgagg atgtgactgg accccatgaa gctttcagta    600
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cacagaagca gtgtccgcaa agtggagagg aagcggtggc cctggtagtg catttggaga 780

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gtacaaaatt ttgtaacagt ttcaacaggt tttcattaaa aataaaataa ac 2332

<210> 260

<211> 2270

<212> DNA

<213> Homo sapiens

<400> 260

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acatctccag cttcatgtgt tcaaaagggc aagggttgat tggaccatgg tactgttctc   360

ccttacctgc ccaagaaggc tatccccact cacccccgct catcttgcct tgtaaagggc   420

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<210> 261

<211> 1935

<212> DNA

<213> Homo sapiens


<400> 261

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gaacatctga tcaggcgcaa atggtccttg acccccagcc cttctgctga ggcccagaga    240
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<210> 262

<211> 3016

<212> DNA

<213> Homo sapiens

<400> 262

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<213> Homo sapiens

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<211> 2210

<212> DNA

<213> Homo sapiens

<400> 274

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<211> 2513

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<213> Homo sapiens

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<211> 4033

<212> DNA

<213> Homo sapiens

<400> 284

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<213> Homo sapiens

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<211> 2568

<212> DNA

<213> Homo sapiens

<400> 295

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<213> Homo sapiens

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<211> 2194

<212> DNA

<213> Homo sapiens

<400> 297

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<211> 2876

<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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<210> 306

<211> 3913

<212> DNA

<213> Homo sapiens

<400> 306

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aaaaaattta gaagaatgta taactagaat aaccaataca gagaagtgct taaaggagct   3780

gatggagctg aaaaccaagg ctcgagaact acgtgaagaa tgcagaagcc tcaggagccg   3840

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<210> 307

<211> 492

<212> PRT

<213> Homo sapiens

<400> 307

Met Pro Ser Phe Leu Val Pro Ser Leu Val Ser Ser Pro Val Leu Leu

1　　　　　　　　　5　　　　　　　　10　　　　　　　　15

Lys Leu Leu Phe Ser Pro Gly Pro Lys Thr Ile Trp Ser Leu Trp Gln

　　　　　　　20　　　　　　　　25　　　　　　　　30

Gln Pro Met Leu Phe Gln Glu Ala Thr Ala Phe Glu Asn Met Thr Lys

　　　　　　　35　　　　　　　　40　　　　　　　　45

Asp Trp Asn Tyr Leu Glu Gly Ser Gln Lys Asp Cys Tyr Arg Asp Thr

　　　　　　　50　　　　　　　　55　　　　　　　　60

Met Leu Asp Ser Tyr Glu Asn Thr Val Pro Gln Gly Ser Phe Leu Gln

65　　　　　　　　70　　　　　　　　75　　　　　　　　80

Leu Ser Met Met Pro Gln Arg Ala Gly Asn Asp Pro Pro Gly Val Ser
　　　　　　　　85　　　　　　　　　90　　　　　　　　　95

Asn Ala Ser Glu Met Glu Met Glu Ile Ser Asn Met Arg Glu Lys Phe
　　　　　　　100　　　　　　　　105　　　　　　　　110

Leu Met Ser Val Thr Lys Leu Val Glu Ser Lys Ser Tyr Asn Ser Lys
　　　　　　　115　　　　　　　　120　　　　　　　　125

Val Phe Ser Lys Glu Lys Tyr Phe Gln Thr Ile Lys Glu Val Lys Glu
　　　　　　　130　　　　　　　　135　　　　　　　　140

Ala Lys Glu Lys Gly Lys Lys Ser Ser Arg Asp Tyr Arg Arg Ala Ala
145　　　　　　　　150　　　　　　　　155　　　　　　　　160

Lys Tyr Asp Val Ile Ser Val Gln Gly Thr Glu Lys Leu Ile Glu Ala
　　　　　　　165　　　　　　　　170　　　　　　　　175

Thr His Gly Glu Arg Asp Arg Ile Arg Tyr Tyr Val His Lys Glu Glu
　　　　　　　180　　　　　　　　185　　　　　　　　190

Leu Phe Asp Ile Leu His Asp Thr His Leu Ser Ile Gly His Gly Gly
　　　　　　　195　　　　　　　　200　　　　　　　　205

Arg Thr Arg Met Leu Lys Glu Leu Gln Gly Lys Tyr Gly Asn Val Thr
　　　　　　　210　　　　　　　　215　　　　　　　　220

Lys Glu Val Ile Val Leu Tyr Leu Thr Leu Cys Lys Gln Cys His Gln
225　　　　　　　　230　　　　　　　　235　　　　　　　　240

Lys Asn Pro Val Pro Lys Arg Gly Leu Ala Pro Lys Pro Met Thr Phe
　　　　　　　245　　　　　　　　250　　　　　　　　255

Lys Asp Ile Asp Ser Thr Cys Gln Val Glu Ile Leu Asp Met Gln Ser
　　　　　　　260　　　　　　　　265　　　　　　　　270

Ser Ala Asp Gly Glu Phe Lys Phe Ile Leu Tyr Tyr Gln Asp His Ser
　　　　　　　275　　　　　　　　280　　　　　　　　285

Thr Lys Phe Ile Ile Leu Arg Pro Leu Arg Thr Lys Gln Ala His Glu
　　　　　　　290　　　　　　　　295　　　　　　　　300

Val Val Ser Val Leu Leu Asp Ile Phe Thr Ile Leu Gly Thr Pro Ser

```
305                 310                 315                 320
Val Leu Asp Ser Asp Ser Gly Val Glu Phe Thr Asn Gln Val Val His
                325                 330                 335
Glu Leu Asn Glu Leu Trp Pro Asp Leu Lys Ile Val Ser Gly Lys Tyr
                340                 345                 350
His Pro Gly Gln Ser Gln Gly Ser Leu Glu Gly Ala Ser Arg Asp Val
                355                 360                 365
Lys Asn Met Ile Ser Thr Trp Met Gln Ser Asn His Ser Cys His Trp
        370                 375                 380
Ala Lys Gly Leu Arg Phe Met Gln Met Val Arg Asn Gln Ala Phe Asp
385                 390                 395                 400
Val Ser Leu Gln Gln Ser Pro Phe Glu Ala Met Phe Gly Tyr Lys Ala
                405                 410                 415
Lys Phe Gly Leu Tyr Ser Ser Asn Leu Pro Arg Glu Thr Val Ala Thr
                420                 425                 430
Leu Gln Thr Glu Glu Glu Leu Glu Ile Ala Glu Glu Gln Leu Glu Asn
                435                 440                 445
Ser Leu Trp Ile Arg Gln Glu Glu Arg Ala Glu Ile Gly Ala Asp Arg
        450                 455                 460
Ser Asp Met Asp Asp Asp Met Asp Pro Thr Pro Glu Ala Ser Glu Pro
465                 470                 475                 480
Ser Thr Ser Gln Gly Thr Ser Gly Leu Leu Cys Trp
                485                 490
```

<210> 308

<211> 287

<212> PRT

<213> Homo sapiens

<400> 308

Met Asp Arg Pro Asp Glu Gly Pro Pro Ala Lys Thr Arg Arg Leu Ser
1   5   10   15

Ser Ser Glu Ser Pro Gln Arg Asp Pro Pro Pro Pro Pro Pro
            20   25   30

Pro Leu Leu Arg Leu Pro Leu Pro Pro Pro Gln Gln Arg Pro Arg Leu
            35   40   45

Gln Glu Glu Thr Glu Ala Ala Gln Val Leu Ala Asp Met Arg Gly Val
            50   55   60

Gly Leu Gly Pro Ala Leu Pro Pro Pro Pro Tyr Val Ile Leu Glu
65   70   75   80

Glu Gly Gly Ile Arg Ala Tyr Phe Thr Leu Gly Ala Glu Cys Pro Gly
                85   90   95

Trp Asp Ser Thr Ile Glu Ser Gly Tyr Gly Glu Ala Pro Pro Pro Thr
            100   105   110

Glu Ser Leu Glu Ala Leu Pro Thr Pro Glu Ala Ser Gly Gly Ser Leu
            115   120   125

Glu Ile Asp Phe Gln Val Val Gln Ser Ser Ser Phe Gly Gly Glu Gly
            130   135   140

Ala Leu Glu Thr Cys Ser Ala Val Gly Trp Ala Pro Gln Arg Leu Val
145   150   155   160

Asp Pro Lys Ser Lys Glu Glu Ala Ile Ile Ile Val Glu Asp Glu Asp
            165   170   175

Glu Asp Glu Arg Glu Ser Met Arg Ser Ser Arg Arg Arg Arg Arg Arg
            180   185   190

Arg Arg Arg Lys Gln Arg Lys Val Lys Arg Glu Ser Arg Glu Arg Asn
            195   200   205

Ala Glu Arg Met Glu Ser Ile Leu Gln Ala Leu Glu Asp Ile Gln Leu

```
        210              215              220
Asp Leu Glu Ala Val Asn Ile Lys Ala Gly Lys Ala Phe Leu Arg Leu
225              230              235              240
Lys Arg Lys Phe Ile Gln Met Arg Arg Pro Phe Leu Glu Arg Arg Asp
                245              250              255
Leu Ile Ile Gln His Ile Pro Gly Phe Trp Val Lys Ala Leu His Ser
                    260              265              270
Ser Val Pro Gln Pro Pro Gln Asn Phe Asn Phe Asp Gln Pro Thr
                275              280              285
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<210> 309

<211> 196

<212> PRT

<213> Homo sapiens

<400> 309

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Met Ser Glu Gly Pro Gly Cys Met Gly Ser Glu Gly Gln Leu Cys Pro
 1                5               10               15
Trp Ser Glu Gly Arg Gln Cys Pro Arg Ser Glu Gly Cys Gln Cys Ala
                20               25               30
Gly Ser Glu Gly Arg His Val Leu Gly Ser Glu Gly Arg Gly Cys Ser
            35               40               45
Gly Ser Glu Gly Cys Gln Cys Pro Gly Ser Glu Gly Arg Arg Val Leu
        50               55               60
Arg Phe Glu Gly Trp His Val Leu Gly Ser Glu Gly Gln Arg Val Pro
65               70               75               80
Gly Ser Glu Gly Arg Pro Leu Gly Pro Leu Gly Leu Leu Arg Glu Gly
                85               90               95
```

Leu Pro Asp Pro Trp Leu Glu His Arg Pro Arg Gly Asp Pro Ser Pro
　　　　　　　100　　　　　　　　　105　　　　　　　　　110

Ser Gly Ala Leu Pro Arg Pro Pro Ser Leu Ser Phe Leu Thr Trp Phe
　　　　　　　115　　　　　　　　　120　　　　　　　　　125

Leu Pro Arg Ser Pro Cys Ile Leu Thr Pro Gly Gly Gly Pro Thr Ser
　　　　　　　130　　　　　　　　　135　　　　　　　　　140

Asn Ser Leu Ser Pro Ala Gly Ala Trp Ala Gly Pro Arg Ser Leu Leu
145　　　　　　　　　150　　　　　　　　　155　　　　　　　　　160

Pro Gln Leu Ala Phe Arg Gly Glu Thr Lys Ala Gln Gly Leu Phe Trp
　　　　　　　　　165　　　　　　　　　170　　　　　　　　　175

Phe Ser Ala Gln Thr Trp Gln Leu Pro Gly Gly Gly Arg Arg Ala Pro
　　　　　　　180　　　　　　　　　185　　　　　　　　　190

Glu Val Gly Ile
　　　　　　　195

<210> 310

<211> 295

<212> PRT

<213> Homo sapiens

<400> 310

Met Arg Gly Ser Arg Met Ser Gln Pro Pro Gln Cys Leu Arg Arg Ala
1　　　　　　　　　5　　　　　　　　　10　　　　　　　　　15

Gln Ser Ser Cys Cys His Phe Met Val Lys Leu Leu Asp Asp Gly Thr
　　　　　　　20　　　　　　　　　25　　　　　　　　　30

Phe Met Ile Pro Gly Glu Lys Val Ala His Thr Ser Leu Asp Ala Leu
　　　　　　　35　　　　　　　　　40　　　　　　　　　45

Val Thr Phe His Gln Gln Lys Pro Ile Glu Pro Arg Arg Glu Leu Leu

```
                50                    55                      60
        Thr Gln Pro Cys Arg Gln Lys Asp Pro Ala Asn Val Asp Tyr Glu Asp
        65                    70                      75                    80
        Leu Phe Leu Tyr Ser Asn Ala Val Ala Glu Glu Ala Ala Cys Pro Val
                              85                      90                    95
        Ser Ala Pro Glu Glu Ala Ser Pro Lys Pro Val Leu Cys His Gln Ser
                              100                   105                   110
        Lys Glu Arg Lys Pro Ser Ala Glu Met Asn Gly Ile Thr Thr Lys Glu
                        115                   120                   125
        Ala Thr Ser Ser Cys Pro Pro Lys Ser Pro Leu Gly Glu Thr Arg Gln
                        130                   135                   140
        Lys Leu Trp Arg Ser Leu Lys Met Leu Pro Glu Arg Gly Gln Arg Val
        145                   150                   155                   160
        Arg Gln Gln Leu Lys Ser His Leu Ala Thr Val Asn Leu Ser Ser Leu
                              165                   170                   175
        Leu Asp Val Arg Arg Ser Thr Val Ile Ser Gly Pro Gly Thr Gly Lys
                        180                   185                   190
        Gly Ser Gln Asp His Ser Gly Asp Pro Thr Ser Gly Asp Arg Gly Tyr
                        195                   200                   205
        Thr Asp Pro Cys Val Ala Thr Ser Leu Lys Ser Pro Ser Gln Pro Gln
                210                   215                   220
        Ala Pro Lys Asp Arg Lys Val Pro Thr Arg Lys Ala Glu Arg Ser Val
        225                   230                   235                   240
        Ser Cys Ile Glu Val Thr Pro Gly Asp Arg Ser Trp His Gln Met Val
                              245                   250                   255
        Val Arg Ala Leu Ser Ser Gln Glu Ser Lys Pro Glu His Gln Gly Leu
                        260                   265                   270
        Ala Glu Pro Glu Asn Asp Gln Leu Pro Glu Glu Tyr Gln Gln Pro Pro
                275                   280                   285
```

Pro Phe Ala Pro Gly Tyr Cys
    290   295

<210> 311

<211> 594

<212> PRT

<213> Homo sapiens

<400> 311

Met Lys Val Thr Leu Ser Ala Leu Asp Thr Ser Glu Ser Ser Phe Thr
1   5   10   15

Pro Leu Val Val Ile Glu Leu Ala Gln Asp Val Lys Glu Glu Thr Lys
                20   25   30

Glu Trp Leu Lys Asn Arg Ile Ile Ala Lys Lys Lys Asp Gly Asp Asn
            35   40   45

Asn Asp Asp Phe Leu Thr Met Ala Glu Cys Gln Phe Ile Ile Lys His
        50   55   60

Glu Leu Glu Asn Leu Arg Ala Lys Asp Glu Lys Met Ile Pro Gly Tyr
65   70   75   80

Pro Gln Ala Lys Leu Tyr Pro Gly Lys Ser Leu Leu Arg Arg Leu Leu
                85   90   95

Thr Ser Gly Ile Val Ile Gln Val Phe Pro Leu His Asp Ser Glu Ala
                100   105   110

Leu Lys Lys Leu Glu Asp Thr Trp Tyr Thr Arg Phe Ala Leu Lys Tyr
            115   120   125

Gln Pro Ile Asp Ser Ile Arg Gly Tyr Phe Gly Glu Thr Ile Ala Leu
        130   135   140

Tyr Phe Gly Phe Leu Glu Tyr Phe Thr Phe Ala Leu Ile Pro Met Ala

```
        145                 150                 155                 160
Val Ile Gly Leu Pro Tyr Tyr Leu Phe Val Trp Glu Asp Tyr Asp Lys
                    165                 170                 175
Tyr Val Ile Phe Ala Ser Phe Asn Leu Ile Trp Ser Thr Val Ile Leu
                    180                 185                 190
Glu Leu Trp Lys Arg Gly Cys Ala Asn Met Thr Tyr Arg Trp Gly Thr
                    195                 200                 205
Leu Leu Met Lys Arg Lys Phe Glu Glu Pro Arg Pro Gly Phe His Gly
        210                 215                 220
Val Leu Gly Ile Asn Ser Ile Thr Gly Lys Glu Glu Pro Leu Tyr Pro
225                 230                 235                 240
Ser Tyr Lys Arg Gln Leu Arg Ile Tyr Leu Val Ser Leu Pro Phe Val
                    245                 250                 255
Cys Leu Cys Leu Tyr Phe Ser Leu Tyr Val Met Met Ile Tyr Phe Asp
                    260                 265                 270
Met Glu Val Trp Ala Leu Gly Leu His Glu Asn Ser Gly Ser Glu Trp
                    275                 280                 285
Thr Ser Val Leu Leu Tyr Val Pro Ser Ile Ile Tyr Ala Ile Val Ile
        290                 295                 300
Glu Ile Met Asn Arg Leu Tyr Arg Tyr Ala Ala Glu Phe Leu Thr Ser
305                 310                 315                 320
Trp Glu Asn His Arg Leu Glu Ser Ala Tyr Gln Asn His Leu Ile Leu
                    325                 330                 335
Lys Val Leu Val Phe Asn Phe Leu Asn Cys Phe Ala Ser Leu Phe Tyr
                    340                 345                 350
Ile Ala Phe Val Leu Lys Asp Met Lys Leu Leu Arg Gln Ser Leu Ala
                    355                 360                 365
Thr Leu Leu Ile Thr Ser Gln Ile Leu Asn Gln Ile Met Glu Ser Phe
        370                 375                 380
```

Leu Pro Tyr Trp Leu Gln Arg Lys His Gly Val Gln Val Lys Arg Lys
385   390   395   400

Val Gln Ala Leu Lys Ala Asp Ile Asp Ala Thr Leu Tyr Glu Gln Val
        405   410   415

Ile Leu Glu Lys Glu Met Gly Thr Tyr Leu Gly Thr Phe Asp Asp Tyr
        420   425   430

Leu Glu Leu Phe Leu Gln Phe Gly Tyr Val Ser Leu Phe Ser Cys Val
        435   440   445

Tyr Pro Leu Ala Ala Ala Phe Ala Val Leu Asn Asn Phe Thr Glu Val
        450   455   460

Asn Ser Asp Ala Leu Lys Met Cys Arg Val Phe Lys Arg Pro Phe Ser
465   470   475   480

Glu Pro Ser Ala Asn Ile Gly Val Trp Gln Leu Ala Phe Glu Thr Met
        485   490   495

Ser Val Ile Ser Val Val Thr Asn Cys Ala Leu Ile Gly Met Ser Pro
        500   505   510

Gln Val Asn Ala Val Phe Pro Glu Ser Lys Ala Asp Leu Ile Leu Ile
        515   520   525

Val Val Ala Val Glu His Ala Leu Leu Ala Leu Lys Phe Ile Leu Ala
        530   535   540

Phe Ala Ile Pro Asp Lys Pro Arg His Ile Gln Met Lys Leu Ala Arg
545   550   555   560

Leu Glu Phe Glu Ser Leu Glu Ala Leu Lys Gln Gln Gln Met Lys Leu
        565   570   575

Val Thr Glu Asn Leu Lys Glu Glu Pro Met Glu Ser Gly Lys Glu Lys
        580   585   590

Ala Thr

<210> 312

<211> 120

<212> PRT

<213> Homo sapiens

<400> 312

Met Phe Leu Ala Pro Leu Leu His Ser Leu Val Leu Pro Gly Leu Phe
1   5   10   15

Leu Ala Pro Pro Leu His Ser Ala Val Leu Pro Gly Met Phe Leu Ala
                20   25   30

Pro Pro Leu His Ser Pro Val Leu Pro Gly Met Phe Leu Ala Pro Pro
                35   40   45

Leu His Ser Pro Val Leu Ile Ser His Phe Ser Lys Val Gly Phe Arg
        50   55   60

Gly Arg Arg Asp Glu Arg Lys Asp Thr Ala Ser His Gly Gly Tyr Gly
65   70   75   80

Ser His Leu Val Met Gly Leu Ser Gly Cys Asp Lys Tyr Thr Lys Pro
                85   90   95

His Phe Phe Ser Trp Gly Ala Phe Gly Glu Leu Leu Trp Arg Pro Ser
                100   105   110

His Arg Met Leu Glu Asp Gly Phe
                115   120

<210> 313

<211> 461

<212> PRT

<213> Homo sapiens

<400> 313

Met Glu Arg Glu Gly Ile Trp His Ser Thr Leu Gly Glu Thr Trp Glu
1   5   10   15

Pro Asn Asn Trp Leu Glu Gly Gln Gln Asp Ser His Leu Ser Gln Val
            20   25   30

Gly Val Thr His Lys Glu Thr Phe Thr Glu Met Arg Val Cys Gly Gly
            35   40   45

Asn Glu Phe Glu Arg Cys Ser Ser Gln Asp Ser Ile Leu Asp Thr Gln
        50   55   60

Gln Ser Ile Pro Met Val Lys Arg Pro His Asn Cys Asn Ser His Gly
65   70   75   80

Glu Asp Ala Thr Gln Asn Ser Glu Leu Ile Lys Thr Gln Arg Met Phe
                85   90   95

Val Gly Lys Lys Ile Tyr Glu Cys Asn Gln Cys Ser Lys Thr Phe Ser
            100   105   110

Gln Ser Ser Ser Leu Leu Lys His Gln Arg Ile His Thr Gly Glu Lys
            115   120   125

Pro Tyr Lys Cys Asn Val Cys Gly Lys His Phe Ile Glu Arg Ser Ser
            130   135   140

Leu Thr Val His Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys
145   150   155   160

Asn Glu Cys Gly Lys Ala Phe Ser Gln Ser Met Asn Leu Thr Val His
            165   170   175

Gln Arg Thr His Thr Gly Glu Lys Pro Tyr Gln Cys Lys Glu Cys Gly
            180   185   190

Lys Ala Phe His Lys Asn Ser Ser Leu Ile Gln His Glu Arg Ile His
            195   200   205

Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Thr

```
          210              215              220
Gln Ser Met Asn Leu Thr Val His Gln Arg Thr His Thr Gly Glu Lys
225              230              235              240
Pro Tyr Glu Cys Asn Glu Cys Gly Lys Ala Phe Ser Gln Ser Met His
                 245              250              255
Leu Ile Val His Gln Arg Ser His Thr Gly Glu Lys Pro Tyr Glu Cys
                 260              265              270
Ser Gln Cys Gly Lys Ala Phe Ser Lys Ser Ser Thr Leu Thr Leu His
                 275              280              285
Gln Arg Asn His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Lys Cys Gly
                 290              295              300
Lys Ser Phe Ser Gln Ser Thr Tyr Leu Ile Glu His Gln Arg Leu His
305              310              315              320
Ser Gly Val Lys Pro Phe Glu Cys Asn Glu Cys Gly Lys Ala Phe Ser
                 325              330              335
Lys Asn Ser Ser Leu Thr Gln His Arg Arg Ile His Thr Gly Glu Lys
                 340              345              350
Pro Tyr Glu Cys Met Val Cys Gly Lys His Phe Thr Gly Arg Ser Ser
                 355              360              365
Leu Thr Val His Gln Val Ile His Thr Gly Glu Lys Pro Tyr Glu Cys
370              375              380
Asn Glu Cys Gly Lys Ala Phe Ser Gln Ser Ala Tyr Leu Ile Glu His
385              390              395              400
Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Asp Gln Cys Gly
                 405              410              415
Lys Ala Phe Ile Lys Asn Ser Ser Leu Thr Val His Gln Arg Thr His
                 420              425              430
Thr Gly Glu Lys Pro Tyr Gln Cys Asn Glu Cys Gly Lys Ala Phe Ser
                 435              440              445
```

Arg Ser Thr Asn Leu Thr Arg His Gln Arg Thr His Thr
    450   455   460

<210> 314

<211> 122

<212> PRT

<213> Homo sapiens

<400> 314

Met Thr Ile Ala Thr Pro Phe Val Cys Leu Ile Phe Ala His Ser Gln
  1   5   10   15

Val Phe Thr Asp Phe Ile Pro Tyr Ser Arg His Leu Gln Met Pro Thr
                 20   25   30

Ser Tyr Pro Cys Ser Lys Thr His Phe Lys Cys Pro Leu Leu Trp Glu
             35   40   45

Met Pro Val Val Pro Leu Asp Thr Asn His Leu Ser Ser Leu Glu Pro
         50   55   60

Ile Thr His Ala Pro Thr Pro Ile Ser Asn Ala Tyr Ser Ser Arg Lys
 65   70   75   80

Cys Pro Ser Thr His Gly Gln Lys Ser Ser Leu Leu Leu Thr Ala Asn
                 85   90   95

Thr Ala Ala His Gln Ala Trp Ala Leu Ser His Val Leu Ser Ile Thr
                100   105   110

Leu Thr Asp Leu Trp Pro Ile Tyr Pro His
             115   120

<210> 315

<211> 123

<212> PRT

<213> Homo sapiens

<400> 315

Met	Lys	Gly	Pro	Cys	Pro	His	Leu	Pro	Pro	Pro	Leu	Ser	Ser	Cys	Ile
1				5					10					15	

Met Asn Glu Thr Ala Ala Ser Leu Leu Pro Glu Val Leu His Phe Arg
            20   25   30

Leu Gly Cys Asn Gly Ser Ile Ser Ala Gln Cys Asn Leu Cys Phe Pro
            35   40   45

Gly Ser Ser Asp Ser Pro Ala Ser Ala Ser Gln Ala Ala Val Asn Thr
         50   55   60

Gly Trp Ser Ala Val Val Leu Cys Leu Glu Phe Val Pro Ala Val Gly
  65   70   75   80

Phe Val Val Leu Leu Thr Ser Arg Met Lys Pro Arg Thr Phe Thr Arg
               85   90   95

Asn Ile Thr Leu Tyr Gly Cys Thr Thr Val Cys Leu Ser Ile Leu Gln
               100   105   110

Val Lys Asp Met Trp Val Val Pro Ser Ala Gly
         115   120

<210> 316

<211> 127

<212> PRT

<213> Homo sapiens

<400> 316

Met Asp Leu His His Ser Val Gln Pro Glu Ser Leu Leu Leu Ser Thr
1   5   10   15

Ala Ser Phe Ser Phe Ser Leu Ile Ile Pro Phe Asn Ser Asn Lys Met
                20   25   30

Thr Trp Pro Ala His Glu Asn Thr Glu Met Arg Pro His Leu Val Ile
            35   40   45

Ser Gly Val Leu Arg Gly Thr Leu Val Val Val Leu Gly Ala Ala Val
        50   55   60

Leu Ser Val Lys Asn Phe Gln Glu Phe Leu Ile Ser Cys Phe His Gln
65   70   75   80

Asp Ser His Asn Leu Leu Leu Leu Pro Leu Ser Ser Gly Phe Val Pro
                85   90   95

Glu His Ile Ile Arg Lys Ala Ala Ile Ile Thr Ala Tyr Leu Pro Pro
            100   105   110

Ala Pro Leu His Lys His Pro Pro Ser Pro His Cys Ala Lys Gln
            115   120   125

<210> 317

<211> 194

<212> PRT

<213> Homo sapiens

<400> 317

Met Asp Arg Pro Ser Leu Val Arg Ser Arg Lys Gln Ser Pro Arg Leu
1   5   10   15

Ser Ala Ser Ser Gly Asn Phe Ile Pro Pro Tyr His Pro Ser Ser Leu
                20   25   30

Gly Lys Val Glu Arg Thr Asn Gly Leu Leu Lys Thr His Leu Thr Lys

```
            35                    40                    45
Leu Ser Leu Gln Leu Lys Lys Asp Trp Thr Ala Leu Leu Pro Phe Ala
        50                    55                    60
Leu Leu Arg Ile Arg Ala Tyr Pro Gln Glu Ala Thr Gly Tyr Ser Pro
65                    70                    75                    80
Phe Glu Leu Ser Tyr Gly Cys Thr Phe Leu Leu Gly Pro Asn Leu Leu
                85                    90                    95
Thr Asp Asn Thr Tyr Ala Asp Met Gln Gln Lys Lys Gln Leu Val Phe
               100                   105                   110
Pro His Leu Ser Leu Thr Ala Ser Phe Leu Pro Ser His Leu Ser Leu
            115                   120                   125
Pro Pro Ile Leu Pro Leu Lys Leu Leu Pro Ile Asn Pro Phe Leu Leu
            130                   135                   140
Met Lys Leu Leu Pro Ile Asn Pro Phe Leu Leu Lys Ala Asn Gly Ser
145                   150                   155                   160
Trp Ile Lys Glu Asn Ser Ser Phe Leu Pro His Arg Leu Ile Leu Ser
               165                   170                   175
Tyr His Pro Phe Arg Thr Ser Phe Met Trp Val Thr Ser Gln Trp Pro
            180                   185                   190
Ile Ser
```

<210> 318

<211> 237

<212> PRT

<213> Homo sapiens

<400> 318

```
Met Ser Cys Arg His Ser Phe Pro Leu Leu Leu Pro Cys Ser Leu His
1               5                  10                  15
Ser His Ala Phe Leu Ser Ser Cys His Gly Asp Leu Cys Pro Leu Thr
                20                  25                  30
Ser His Thr Ala Cys Phe Leu Ala Cys Val Pro Pro Gln Ala Gly Gly
            35                  40                  45
His Phe Gln Ser Ser Phe Thr Pro Cys Val Arg Val Ile Asn Gln Ile
        50                  55                  60
Trp Ala Pro Val Leu His Pro Leu Cys His Asn Ser Pro Cys Pro Pro
65                  70                  75                  80
Asn Leu Pro Gly Thr Arg Phe Gly Ala Met Leu Asp Met Leu Thr Asp
                85                  90                  95
Arg Cys Ser Thr Met Cys Leu Leu Val Asn Leu Ala Leu Leu Tyr Pro
            100                 105                 110
Gly Ala Thr Leu Phe Phe Gln Ile Ser Met Ser Leu Asp Val Ala Ser
            115                 120                 125
His Trp Leu His Leu His Ser Ser Val Val Arg Gly Ser Glu Ser His
            130                 135                 140
Lys Met Ile Asp Leu Ser Gly Asn Pro Val Leu Arg Ile Tyr Tyr Thr
145                 150                 155                 160
Ser Arg Pro Ala Leu Phe Thr Leu Cys Ala Gly Asn Glu Leu Phe Tyr
                165                 170                 175
Cys Leu Leu Tyr Leu Phe His Phe Ser Glu Gly Pro Leu Val Gly Ser
            180                 185                 190
Val Gly Leu Phe Arg Met Gly Leu Trp Val Thr Ala Pro Ile Ala Leu
            195                 200                 205
Leu Lys Ser Leu Ile Ser Val Ile His Leu Ile Thr Ala Ala Arg Asn
210                 215                 220
Met Ala Ala Leu Asp Ala Ala Asp Arg Ala Lys Lys Lys
```

225   230   235

<210> 319

<211> 111

<212> PRT

<213> Homo sapiens

<400> 319

Met Gln Gln Thr Phe Leu Asp Asp Ser Pro His Pro Pro Ser Cys Gln
1   5   10   15

Ala Ser Ala Pro Leu His Phe Ser Phe Ser Glu Trp Ser Leu Arg Arg
                20   25   30

Leu Pro Asp Leu Leu Leu Pro Gly Pro Ser Gln Ala Tyr Pro Phe Leu
            35   40   45

Ser Ser Leu Pro Ser Phe Thr Pro Ser Leu Ser Met Glu Pro His Ser
        50   55   60

Gly Gln Asp His Leu Leu Trp Pro Ser Glu Gly Phe Arg Thr Ala Gly
65   70   75   80

Gly Cys Ser Pro Arg Pro Leu Glu Trp Phe Val Ile Phe Leu Cys Leu
                85   90   95

Val Pro Thr Cys Leu Ser Ser Leu Leu Pro Pro His Ala Ser Ser
            100   105   110

<210> 320

<211> 132

<212> PRT

<213> Homo sapiens

<400> 320

```
Met Asn Glu Lys Lys Lys Met Leu Lys Val Ala Arg Glu Lys Gly Gln
1               5                   10                  15
Val Thr Tyr Lys Gly Lys Pro Ile Arg Leu Met Val Gly Leu Leu Ala
            20                  25                  30
Asp Thr Leu Gln Ala Ile Arg Asp Leu Gly Pro Met Phe Asn Ile Ser
            35                  40                  45
Phe Leu Phe Phe Ser Phe Leu Phe Phe Phe Leu Asp Arg Val Ser Leu
            50                  55                  60
Cys His Gln Ala Gly Val Gln Trp His Asp Leu Gly Ser Leu Gln Pro
65                  70                  75                  80
Pro Pro Pro Arg Phe Lys Gln Phe Ser Cys Leu Ser Leu Pro Ser Ser
                85                  90                  95
Trp Asp Tyr Arg Arg Ala Pro Ser His Leu Ala Asn Phe Cys Ile Phe
            100                 105                 110
Ser Arg Asp Gly Val Ser Pro Cys Trp Pro Gly Trp Ser Arg Ser Pro
            115                 120                 125
Asp Phe Met Ile
    130
```

<210> 321

<211> 665

<212> PRT

<213> Homo sapiens

<400> 321

```
Met Met Lys Thr Phe Phe Ser Thr Gly Gln Gly Asp Thr Glu Ala Phe
```

```
         1                5                    10                   15
His Thr Gly Thr Leu Gln Arg Gln Ala Ser His His Ile Gly Asp Phe
              20                   25                   30
Cys Phe Gln Lys Ile Glu Lys Asp Ile His Gly Phe Gln Phe Gln Trp
         35                   40                   45
Lys Glu Asp Glu Thr Asn Asp His Ala Ala Pro Met Thr Glu Ile Lys
       50                   55                   60
Glu Leu Thr Gly Ser Thr Gly Gln His Asp Gln Arg His Ala Gly Asn
     65                   70                   75                   80
Lys His Ile Lys Asp Gln Leu Gly Leu Ser Phe His Ser His Leu Pro
                   85                   90                   95
Glu Leu His Ile Phe Gln Pro Glu Gly Lys Ile Gly Asn Gln Val Glu
              100                  105                  110
Lys Ser Ile Asn Asn Ala Ser Ser Val Ser Thr Ser Gln Arg Ile Cys
              115                  120                  125
Cys Arg Pro Lys Thr His Ile Ser Asn Lys Tyr Gly Asn Asn Ser Leu
         130                  135                  140
His Ser Ser Leu Leu Thr Gln Lys Arg Asn Val His Met Arg Glu Lys
     145                  150                  155                  160
Ser Phe Gln Cys Ile Glu Ser Gly Lys Ser Phe Asn Cys Ser Ser Leu
              165                  170                  175
Leu Lys Lys His Gln Ile Thr His Leu Glu Glu Lys Gln Cys Lys Cys
              180                  185                  190
Asp Val Tyr Gly Lys Val Phe Asn Gln Lys Arg Tyr Leu Ala Cys His
              195                  200                  205
Arg Arg Ser His Ile Asp Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly
         210                  215                  220
Lys Ile Phe Gly His Asn Thr Ser Leu Phe Leu His Lys Ala Leu His
     225                  230                  235                  240
```

Thr Ala Asp Lys Pro Tyr Glu Cys Glu Glu Cys Asp Lys Val Phe Ser
　　　　　　　245　　　　　　　　250　　　　　　　　255

Arg Lys Ser His Leu Glu Thr His Lys Ile Ile Tyr Thr Gly Gly Lys
　　　　　　　260　　　　　　　　265　　　　　　　　270

Pro Tyr Lys Cys Lys Val Cys Asp Lys Ala Phe Thr Cys Asn Ser Tyr
　　　　　　　275　　　　　　　　280　　　　　　　　285

Leu Ala Lys His Thr Ile Ile His Thr Gly Glu Lys Pro Tyr Lys Cys
　　　　　　　290　　　　　　　　295　　　　　　　　300

Asn Glu Cys Gly Lys Val Phe Asn Arg Leu Ser Thr Leu Ala Arg His
305　　　　　　　　310　　　　　　　　315　　　　　　　　320

Arg Arg Leu His Thr Gly Glu Lys Pro Tyr Glu Cys Glu Glu Cys Glu
　　　　　　　325　　　　　　　　330　　　　　　　　335

Lys Val Phe Ser Arg Lys Ser His Leu Glu Arg His Lys Arg Ile His
　　　　　　　340　　　　　　　　345　　　　　　　　350

Thr Gly Glu Lys Pro Tyr Lys Cys Lys Val Cys Asp Lys Ala Phe Ala
　　　　　　　355　　　　　　　　360　　　　　　　　365

Tyr Asn Ser Tyr Leu Ala Lys His Ser Ile Ile His Thr Gly Glu Lys
　　　　　　　370　　　　　　　　375　　　　　　　　380

Pro Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Asn Gln Gln Ser Thr
385　　　　　　　　390　　　　　　　　395　　　　　　　　400

Leu Ala Arg His His Arg Leu His Thr Ala Glu Gln Pro Tyr Lys Cys
　　　　　　　405　　　　　　　　410　　　　　　　　415

Glu Glu Cys Asp Lys Val Phe Arg Cys Lys Ser His Leu Glu Arg His
　　　　　　　420　　　　　　　　425　　　　　　　　430

Arg Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Lys Val Cys Asp
　　　　　　　435　　　　　　　　440　　　　　　　　445

Lys Ala Phe Arg Ser Asp Ser Cys Leu Thr Glu His Gln Arg Val His
　　　　　　　450　　　　　　　　455　　　　　　　　460

Thr Gly Glu Lys Pro Tyr Thr Cys Asn Glu Cys Gly Lys Val Phe Ser

```
        465                     470                     475                     480
Thr Lys Ala Asn Leu Ala Cys His His Lys Leu His Thr Ala Glu Lys
                    485                     490                     495
Pro Tyr Lys Cys Glu Glu Cys Glu Lys Val Phe Ser Arg Lys Ser His
                500                     505                     510
Met Glu Arg His Arg Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys
            515                     520                     525
Lys Val Cys Asp Lys Ala Phe Arg Arg Asp Ser His Leu Ala Gln His
        530                     535                     540
Gln Arg Val His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly
545                     550                     555                     560
Lys Thr Phe Arg Gln Thr Ser Ser Leu Ile Ile His Arg Arg Leu His
                    565                     570                     575
Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Thr Phe Ser
                580                     585                     590
Gln Met Ser Ser Leu Val Tyr His His Arg Leu His Ser Gly Glu Lys
                595                     600                     605
Pro Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Asn Gln Gln Ala His
        610                     615                     620
Leu Ala Gln His Gln Arg Val His Thr Gly Glu Lys Pro Tyr Lys Cys
625                     630                     635                     640
Asn Glu Cys Gly Lys Thr Phe Ser Gln Met Ser Asn Leu Val Tyr His
                    645                     650                     655
His Arg Leu His Ser Gly Glu Lys Pro
                660                     665
```

<210> 322

<211> 986

<212> PRT

<213> Homo sapiens

<400> 322

```
Met Pro Arg Ala Thr Trp Ala Asn Ser Lys Glu Arg Ser Trp Ala Glu
1               5                   10                  15

Ser Glu Arg Gly Pro Arg Asp Thr Gly Asn Gly Gly Ser Lys Ala Glu
                20                  25                  30

Arg His Ile Gln Glu Ile Glu Thr Gly Arg Gly Gly Asp Arg Ala Lys
            35                  40                  45

Ala His Arg Arg Gln Arg Met Arg Leu Arg Gly Thr Glu Arg Ala Ser
        50                  55                  60

Leu Gly Pro Gly Arg Arg Leu Gly Asp Ser Arg Gly Thr Asp Met Pro
65                  70                  75                  80

Gly Ala Arg Ala Gln Gly Leu Ala Ala Ala Met Thr Glu Glu Ser Glu
                85                  90                  95

Glu Thr Val Leu Tyr Ile Glu His Arg Tyr Val Cys Ser Glu Cys Asn
                100                 105                 110

Gln Leu Tyr Gly Ser Leu Glu Glu Val Leu Met His Gln Asn Ser His
            115                 120                 125

Val Pro Gln Gln His Phe Glu Leu Val Gly Val Ala Asp Pro Gly Val
        130                 135                 140

Thr Val Ala Thr Asp Thr Ala Ser Gly Thr Gly Leu Tyr Gln Thr Leu
145                 150                 155                 160

Val Gln Glu Ser Gln Tyr Gln Cys Leu Glu Cys Gly Gln Leu Leu Met
                165                 170                 175

Ser Pro Ser Gln Leu Leu Glu His Gln Glu Leu His Leu Lys Met Met
            180                 185                 190

Ala Pro Gln Glu Ala Val Pro Ala Glu Pro Ser Pro Lys Ala Pro Pro
```

　　　　　　195　　　　　　　　　200　　　　　　　　　205

Leu Ser Ser Ser Thr Ile His Tyr Glu Cys Val Asp Cys Lys Ala Leu

　　　　　　210　　　　　　　　　215　　　　　　　　　220

Phe Ala Ser Gln Glu Leu Trp Leu Asn His Arg Gln Thr His Leu Arg

225　　　　　　　　　230　　　　　　　　　235　　　　　　　　　240

Ala Thr Pro Thr Lys Ala Pro Ala Pro Val Val Leu Gly Ser Pro Val

　　　　　　　　　245　　　　　　　　　250　　　　　　　　　255

Val Leu Gly Pro Pro Val Gly Gln Ala Arg Val Ala Val Glu His Ser

　　　　　　　　　260　　　　　　　　　265　　　　　　　　　270

Tyr Arg Lys Ala Glu Glu Gly Gly Glu Gly Ala Thr Val Pro Ser Ala

　　　　　　275　　　　　　　　　280　　　　　　　　　285

Ala Ala Thr Thr Thr Glu Val Val Thr Glu Val Glu Leu Leu Leu Tyr

　　　　　　290　　　　　　　　　295　　　　　　　　　300

Lys Cys Ser Glu Cys Ser Gln Leu Phe Gln Leu Pro Ala Asp Phe Leu

305　　　　　　　　　310　　　　　　　　　315　　　　　　　　　320

Glu His Gln Ala Thr His Phe Pro Ala Pro Val Pro Glu Ser Gln Glu

　　　　　　　　　325　　　　　　　　　330　　　　　　　　　335

Pro Ala Leu Gln Gln Glu Val Gln Ala Ser Ser Pro Ala Glu Val Pro

　　　　　　　　　340　　　　　　　　　345　　　　　　　　　350

Val Ser Gln Pro Asp Pro Leu Pro Ala Ser Asp His Ser Tyr Glu Leu

　　　　　　355　　　　　　　　　360　　　　　　　　　365

Arg Asn Gly Glu Ala Ile Gly Arg Asp Arg Arg Gly Arg Arg Ala Arg

　　　　　　370　　　　　　　　　375　　　　　　　　　380

Arg Asn Asn Ser Gly Glu Ala Gly Gly Ala Ala Thr Gln Glu Leu Phe

385　　　　　　　　　390　　　　　　　　　395　　　　　　　　　400

Cys Ser Ala Cys Asp Gln Leu Phe Leu Ser Pro His Gln Leu Gln Gln

　　　　　　　　　405　　　　　　　　　410　　　　　　　　　415

His Leu Arg Ser His Arg Glu Gly Val Phe Lys Cys Pro Leu Cys Ser

　　　　　　420　　　　　　　　　425　　　　　　　　　430

Arg Val Phe Pro Ser Pro Ser Ser Leu Asp Gln His Leu Gly Asp His
       435   440   445

Ser Ser Glu Ser His Phe Leu Cys Val Asp Cys Gly Leu Ala Phe Gly
      450   455   460

Thr Glu Ala Leu Leu Leu Ala His Arg Arg Ala His Thr Pro Asn Pro
465   470   475   480

Leu His Ser Cys Pro Cys Gly Lys Thr Phe Val Asn Leu Thr Lys Phe
          485   490   495

Leu Tyr His Arg Arg Thr His Gly Val Gly Gly Val Pro Leu Pro Thr
        500   505   510

Thr Pro Val Pro Pro Glu Glu Pro Val Ile Gly Phe Pro Glu Pro Ala
        515   520   525

Pro Ala Glu Thr Gly Glu Pro Glu Ala Pro Glu Pro Pro Val Ser Glu
        530   535   540

Glu Thr Ser Ala Gly Pro Ala Ala Pro Gly Thr Tyr Arg Cys Leu Leu
545   550   555   560

Cys Ser Arg Glu Phe Gly Lys Ala Leu Gln Leu Thr Arg His Gln Arg
          565   570   575

Phe Val His Arg Leu Glu Arg Arg His Lys Cys Ser Ile Cys Gly Lys
        580   585   590

Met Phe Lys Lys Lys Ser His Val Arg Asn His Leu Arg Thr His Thr
        595   600   605

Gly Glu Arg Pro Phe Pro Cys Pro Asp Cys Ser Lys Pro Phe Asn Ser
        610   615   620

Pro Ala Asn Leu Ala Arg His Arg Leu Thr His Thr Gly Glu Arg Pro
625   630   635   640

Tyr Arg Cys Gly Asp Cys Gly Lys Ala Phe Thr Gln Ser Ser Thr Leu
        645   650   655

Arg Gln His Arg Leu Val His Ala Gln His Phe Pro Tyr Arg Cys Gln

```
                660                665                670
Glu Cys Gly Val Arg Phe His Arg Pro Tyr Arg Leu Leu Met His Arg
           675                680                685
Tyr His His Thr Gly Glu Tyr Pro Tyr Lys Cys Arg Glu Cys Pro Arg
           690                695                700
Ser Phe Leu Leu Arg Arg Leu Leu Glu Val His Gln Leu Val Val His
705                710                715                720
Ala Gly Arg Gln Pro His Arg Cys Pro Ser Cys Gly Ala Ala Phe Pro
                725                730                735
Ser Ser Leu Arg Leu Arg Glu His Arg Cys Ala Ala Ala Ala Ala Gln
                740                745                750
Ala Pro Arg Arg Phe Glu Cys Gly Thr Cys Gly Lys Lys Val Gly Ser
                755                760                765
Ala Ala Arg Leu Gln Ala His Glu Ala Ala His Ala Ala Ala Gly Pro
           770                775                780
Gly Glu Val Leu Ala Lys Glu Pro Pro Ala Pro Arg Ala Pro Arg Ala
785                790                795                800
Thr Arg Ala Pro Val Ala Ser Pro Ala Ala Leu Gly Ser Thr Ala Thr
                805                810                815
Ala Ser Pro Ala Ala Pro Ala Arg Arg Arg Gly Leu Glu Cys Ser Glu
                820                825                830
Cys Lys Lys Leu Phe Ser Thr Glu Thr Ser Leu Gln Val His Arg Arg
                835                840                845
Ile His Thr Gly Glu Arg Pro Tyr Pro Cys Pro Asp Cys Gly Lys Ala
           850                855                860
Phe Arg Gln Ser Thr His Leu Lys Asp His Arg Arg Leu His Thr Gly
865                870                875                880
Glu Arg Pro Phe Ala Cys Glu Val Cys Gly Lys Ala Phe Ala Ile Ser
                885                890                895
```

Met Arg Leu Ala Glu His Arg Arg Ile His Thr Gly Glu Arg Pro Tyr
　　　　　900　　　　　　　　905　　　　　　　　910

Ser Cys Pro Asp Cys Gly Lys Ser Tyr Arg Ser Phe Ser Asn Leu Trp
　　　　　915　　　　　　　　920　　　　　　　　925

Lys His Arg Lys Thr His Gln Gln Gln His Gln Ala Ala Val Arg Gln
　　　　930　　　　　　　　935　　　　　　　　940

Gln Leu Ala Glu Ala Glu Ala Ala Val Gly Leu Ala Val Met Glu Thr
945　　　　　　　　950　　　　　　　　955　　　　　　　　960

Ala Val Glu Ala Leu Pro Leu Val Glu Ala Ile Glu Ile Tyr Pro Leu
　　　　　　　　965　　　　　　　　970　　　　　　　　975

Ala Glu Ala Glu Gly Val Gln Ile Ser Gly
　　　　　980　　　　　　　　985

<210> 323

<211> 441

<212> PRT

<213> Homo sapiens

<400> 323

Met Glu Tyr Asp Glu Lys Leu Ala Arg Phe Arg Gln Ala His Leu Asn
1　　　　　　　　5　　　　　　　　10　　　　　　　　15

Pro Phe Asn Lys Gln Ser Gly Pro Arg Gln His Glu Gln Gly Pro Gly
　　　　　　　　20　　　　　　　　25　　　　　　　　30

Glu Glu Val Pro Asp Val Thr Pro Glu Glu Ala Leu Pro Glu Leu Pro
　　　　　　　　35　　　　　　　　40　　　　　　　　45

Pro Gly Glu Pro Glu Phe Arg Cys Pro Glu Arg Val Met Asp Leu Gly
　　　　　50　　　　　　　　55　　　　　　　　60

Leu Ser Glu Asp His Phe Ser Arg Pro Val Leu Arg Gln Ala Ile Glu

```
            65                      70                      75                      80
Glu Cys Lys Gln Val Ile Leu Glu Leu Pro Glu Gln Ser Glu Lys Gln
                    85                      90                      95
Lys Asp Ala Val Val Arg Leu Ile His Leu Arg Leu Lys Leu Gln Glu
                    100                     105                     110
Leu Lys Asp Pro Asn Glu Asp Glu Pro Asn Ile Arg Val Leu Leu Glu
                    115                     120                     125
His Arg Phe Tyr Lys Glu Lys Ser Lys Ser Val Lys Gln Thr Cys Asp
                    130                     135                     140
Lys Cys Asn Thr Ile Ile Trp Gly Leu Ile Gln Thr Trp Tyr Thr Cys
145                     150                     155                     160
Thr Gly Cys Tyr Tyr Arg Cys His Ser Lys Cys Leu Asn Leu Ile Ser
                    165                     170                     175
Lys Pro Cys Val Ser Ser Lys Val Ser His Gln Ala Glu Tyr Glu Leu
                    180                     185                     190
Asn Ile Cys Pro Glu Thr Gly Leu Asp Ser Gln Asp Tyr Arg Cys Ala
                    195                     200                     205
Glu Cys Arg Val Pro Ile Ser Leu Arg Gly Val Pro Ser Glu Ala Arg
                    210                     215                     220
Gln Cys Asp Tyr Thr Gly Gln Tyr Tyr Cys Ser His Cys His Trp Asn
225                     230                     235                     240
Asp Leu Ala Val Ile Pro Ala Arg Val Val His Asn Trp Asp Phe Glu
                    245                     250                     255
Pro Arg Lys Val Ser Arg Cys Ser Met Arg Tyr Leu Ala Leu Met Val
                    260                     265                     270
Ser Arg Pro Val Leu Arg Leu Arg Glu Ile Asn Pro Leu Leu Phe Ser
                    275                     280                     285
Tyr Val Glu Glu Leu Val Glu Ile Arg Lys Leu Arg Gln Asp Ile Leu
                    290                     295                     300
```

Leu Met Lys Pro Tyr Phe Ile Thr Cys Arg Glu Ala Met Glu Ala Arg
305   310   315   320

Leu Leu Leu Gln Leu Gln Asp Arg Gln His Phe Val Glu Asn Asp Glu
                325   330   335

Met Tyr Ser Val Gln Asp Leu Leu Asp Val His Ala Gly Arg Leu Gly
                340   345   350

Cys Ser Leu Thr Glu Ile His Thr Leu Phe Ala Lys His Ile Lys Leu
                355   360   365

Asp Cys Glu Arg Cys Gln Ala Lys Gly Phe Val Cys Glu Leu Cys Arg
        370   375   380

Glu Gly Asp Val Leu Phe Pro Phe Asp Ser His Thr Ser Val Cys Ala
385   390   395   400

Asp Cys Ser Ala Val Phe His Arg Asp Cys Tyr Tyr Asp Asn Ser Thr
                405   410   415

Thr Cys Pro Lys Cys Ala Arg Leu Ser Leu Arg Lys Gln Ser Leu Phe
                420   425   430

Gln Glu Pro Gly Pro Asp Val Glu Ala
                435   440

<210> 324

<211> 1389

<212> PRT

<213> Homo sapiens

<400> 324

Met Lys Gln Leu Gln Pro Gln Pro Pro Lys Met Gly Asp Phe Tyr
1   5   10   15

Asp Pro Glu His Pro Thr Pro Glu Glu Glu Glu Asn Glu Ala Lys Ile

```
                20                  25                  30
Glu Asn Val Gln Lys Thr Gly Phe Ile Lys Gly Pro Met Phe Lys Gly
            35                  40                  45
Val Ala Ser Ser Arg Phe Leu Pro Lys Gly Thr Lys Thr Lys Val Asn
        50                  55                  60
Leu Glu Glu Gln Gly Arg Gln Lys Val Ser Phe Ser Phe Ser Leu Thr
    65                  70                  75                  80
Lys Lys Thr Leu Gln Asn Arg Phe Leu Thr Ala Leu Gly Asn Glu Lys
                85                  90                  95
Gln Ser Asp Thr Pro Asn Pro Pro Ala Val Pro Leu Gln Val Asp Ser
               100                 105                 110
Thr Pro Lys Met Lys Met Glu Ile Gly Asp Thr Leu Ser Thr Ala Glu
           115                 120                 125
Glu Ser Ser Pro Pro Lys Ser Arg Val Glu Leu Gly Lys Ile His Phe
       130                 135                 140
Lys Lys His Leu Leu His Val Thr Ser Arg Pro Leu Leu Ala Thr Thr
145                 150                 155                 160
Thr Ala Val Ala Ser Pro Pro Thr His Ala Ala Pro Leu Pro Ala Val
               165                 170                 175
Ile Ala Glu Ser Thr Thr Val Asp Ser Pro Pro Ser Ser Pro Pro Pro
           180                 185                 190
Pro Pro Pro Pro Ala Gln Ala Thr Thr Leu Ser Ser Pro Ala Pro Val
           195                 200                 205
Thr Glu Pro Val Ala Leu Pro His Thr Pro Ile Thr Val Leu Met Ala
       210                 215                 220
Ala Pro Val Pro Leu Pro Val Asp Val Ala Val Arg Ser Leu Lys Glu
225                 230                 235                 240
Pro Pro Ile Ile Ile Val Pro Glu Ser Leu Glu Ala Asp Thr Lys Gln
               245                 250                 255
```

```
Asp Thr Ile Ser Asn Ser Leu Glu Glu His Val Thr Gln Ile Leu Asn
            260             265             270
Glu Gln Ala Asp Ile Ser Ser Lys Lys Glu Asp Ser His Ile Gly Lys
        275             280             285
Asp Glu Glu Ile Pro Asp Ser Ser Lys Ile Ser Leu Ser Cys Lys Lys
        290             295             300
Thr Gly Ser Lys Lys Lys Ser Ser Gln Ser Glu Gly Ile Phe Leu Gly
305             310             315             320
Ser Glu Ser Asp Glu Asp Ser Val Arg Thr Ser Ser Ser Gln Arg Ser
            325             330             335
His Asp Leu Lys Phe Ser Ala Ser Ile Glu Lys Glu Arg Asp Phe Lys
            340             345             350
Lys Ser Ser Ala Pro Leu Lys Ser Glu Asp Leu Gly Lys Pro Ser Arg
            355             360             365
Ser Lys Thr Asp Arg Asp Asp Lys Tyr Phe Ser Tyr Ser Lys Leu Glu
        370             375             380
Arg Asp Thr Arg Tyr Val Ser Ser Arg Cys Arg Ser Glu Arg Glu Arg
385             390             395             400
Arg Arg Ser Arg Ser His Ser Arg Ser Glu Arg Gly Ser Arg Thr Asn
            405             410             415
Leu Ser Tyr Ser Arg Ser Glu Arg Ser His Tyr Tyr Asp Ser Asp Arg
            420             425             430
Arg Tyr His Arg Ser Ser Pro Tyr Arg Glu Arg Thr Arg Tyr Ser Gln
        435             440             445
Pro Tyr Thr Asp Asn Arg Ala Arg Glu Ser Ser Asp Ser Glu Glu Glu
        450             455             460
Tyr Lys Lys Thr Tyr Ser Arg Arg Thr Ser Ser His Ser Ser Ser Tyr
465             470             475             480
Arg Asp Leu Arg Thr Ser Ser Tyr Ser Lys Ser Asp Arg Asp Cys Lys
```

```
                485              490              495
Thr Glu Thr Ser Tyr Leu Glu Met Glu Arg Arg Gly Lys Tyr Ser Ser
            500              505              510
Lys Leu Glu Arg Glu Ser Lys Arg Thr Ser Glu Asn Glu Ala Ile Lys
            515              520              525
Arg Cys Cys Ser Pro Pro Asn Glu Leu Gly Phe Arg Arg Gly Ser Ser
        530              535              540
Tyr Ser Lys His Asp Ser Ser Ala Ser Arg Tyr Lys Ser Thr Leu Ser
545              550              555              560
Lys Pro Ile Pro Lys Ser Asp Lys Phe Lys Asn Ser Phe Cys Cys Thr
                565              570              575
Glu Leu Asn Glu Glu Ile Lys Gln Ser His Ser Phe Ser Leu Gln Thr
            580              585              590
Pro Cys Ser Lys Gly Ser Glu Leu Arg Met Ile Asn Lys Asn Pro Glu
            595              600              605
Arg Glu Lys Ala Gly Ser Pro Ala Pro Ser Asn Arg Leu Asn Asp Ser
        610              615              620
Pro Thr Leu Lys Lys Leu Asp Glu Leu Pro Ile Phe Lys Ser Glu Phe
625              630              635              640
Ile Thr His Asp Ser His Asp Ser Ile Lys Glu Leu Asp Ser Leu Ser
                645              650              655
Lys Val Lys Asn Asp Gln Leu Arg Ser Phe Cys Pro Ile Glu Leu Asn
            660              665              670
Ile Asn Gly Ser Pro Gly Ala Glu Ser Asp Leu Ala Thr Phe Cys Thr
            675              680              685
Ser Lys Thr Asp Ala Val Leu Met Thr Ser Asp Asp Ser Val Thr Gly
        690              695              700
Ser Glu Leu Ser Pro Leu Val Lys Ala Cys Met Leu Ser Ser Asn Gly
705              710              715              720
```

Phe Gln Asn Ile Ser Arg Cys Lys Glu Lys Asp Leu Asp Asp Thr Cys
　　　　　　　725　　　　　　　　730　　　　　　　　735

Met Leu His Lys Lys Ser Glu Ser Pro Phe Arg Glu Thr Glu Pro Leu
　　　　　　　740　　　　　　　　745　　　　　　　　750

Val Ser Pro His Gln Asp Lys Leu Met Ser Met Pro Val Met Thr Val
　　　　　　　755　　　　　　　　760　　　　　　　　765

Asp Tyr Ser Lys Thr Val Val Lys Glu Pro Val Asp Thr Arg Val Ser
　　　　　　　770　　　　　　　　775　　　　　　　　780

Cys Cys Lys Thr Lys Asp Ser Asp Ile Tyr Cys Thr Leu Asn Asp Ser
785　　　　　　　　790　　　　　　　　795　　　　　　　　800

Asn Pro Ser Leu Cys Asn Ser Glu Ala Glu Asn Ile Glu Pro Ser Val
　　　　　　　805　　　　　　　　810　　　　　　　　815

Met Lys Ile Ser Ser Asn Ser Phe Met Asn Val His Leu Glu Ser Lys
　　　　　　　820　　　　　　　　825　　　　　　　　830

Pro Val Ile Cys Asp Ser Arg Asn Leu Thr Asp His Ser Lys Phe Ala
　　　　　　　835　　　　　　　　840　　　　　　　　845

Cys Glu Glu Tyr Lys Gln Ser Ile Gly Ser Thr Ser Ser Ala Ser Val
　　　　　　　850　　　　　　　　855　　　　　　　　860

Asn His Phe Asp Asp Leu Tyr Gln Pro Ile Gly Ser Ser Gly Ile Ala
865　　　　　　　　870　　　　　　　　875　　　　　　　　880

Ser Ser Leu Gln Ser Leu Pro Pro Gly Ile Lys Val Asp Ser Leu Thr
　　　　　　　885　　　　　　　　890　　　　　　　　895

Leu Leu Lys Cys Gly Glu Asn Thr Ser Pro Val Leu Asp Ala Val Leu
　　　　　　　900　　　　　　　　905　　　　　　　　910

Lys Ser Lys Lys Ser Ser Glu Phe Leu Lys His Ala Gly Lys Glu Thr
　　　　　　　915　　　　　　　　920　　　　　　　　925

Ile Val Glu Val Gly Ser Asp Leu Pro Asp Ser Gly Lys Gly Phe Ala
　　　　　　　930　　　　　　　　935　　　　　　　　940

Ser Arg Glu Asn Arg Arg Asn Asn Gly Leu Ser Gly Lys Cys Leu Gln

```
           945                    950                    955                    960
Glu Ala Gln Glu Glu Gly Asn Ser Ile Leu Pro Glu Arg Arg Gly Arg
                    965                    970                    975
Pro Glu Ile Ser Leu Asp Glu Arg Gly Glu Gly Gly His Val His Thr
                    980                    985                    990
Ser Asp Asp Ser Glu Val Val Phe Ser Ser Cys Asp Leu Asn Leu Thr
                    995                   1000                   1005
Met Glu Asp Ser Asp Gly Val Thr Tyr Ala Leu Lys Cys Asp Ser Ser
          1010                   1015                   1020
Gly His Ala Pro Glu Ile Val Ser Thr Val His Glu Asp Tyr Ser Gly
1025                   1030                   1035                   1040
Ser Ser Glu Ser Ser Asn Asp Glu Ser Asp Ser Glu Asp Thr Asp Ser
                    1045                   1050                   1055
Asp Asp Ser Ser Ile Pro Arg Asn Arg Leu Gln Ser Val Val Val Val
                    1060                   1065                   1070
Pro Lys Asn Ser Thr Leu Pro Met Glu Glu Thr Ser Pro Cys Ser Ser
          1075                   1080                   1085
Arg Ser Ser Gln Ser Tyr Arg His Tyr Ser Asp His Trp Glu Asp Glu
          1090                   1095                   1100
Arg Leu Glu Ser Arg Arg His Leu Tyr Glu Glu Lys Phe Glu Ser Ile
1105                   1110                   1115                   1120
Ala Ser Lys Ala Cys Pro Gln Thr Asp Lys Phe Phe Leu His Lys Gly
                    1125                   1130                   1135
Thr Glu Lys Asn Pro Glu Ile Ser Phe Thr Gln Ser Ser Arg Lys Gln
                    1140                   1145                   1150
Ile Asp Asn Arg Leu Pro Glu Leu Ser His Pro Gln Ser Asp Gly Val
          1155                   1160                   1165
Asp Ser Thr Ser His Thr Asp Val Lys Ser Asp Pro Leu Gly His Pro
          1170                   1175                   1180
```

Asn Ser Glu Glu Thr Val Lys Ala Lys Ile Pro Ser Arg Gln Gln Glu
1185   1190   1195   1200

Glu Leu Pro Ile Tyr Ser Ser Asp Phe Glu Asp Phe Pro Asn Lys Ser
          1205   1210   1215

Trp Gln Gln Thr Thr Phe Gln Asn Arg Pro Asp Ser Arg Leu Gly Lys
          1220   1225   1230

Thr Glu Leu Ser Phe Ser Ser Ser Cys Glu Ile Pro His Val Asp Gly
          1235   1240   1245

Leu His Ser Ser Glu Glu Leu Arg Asn Leu Gly Trp Asp Phe Ser Gln
          1250   1255   1260

Glu Lys Pro Ser Thr Thr Tyr Gln Gln Pro Asp Ser Ser Tyr Gly Ala
1265   1270   1275   1280

Cys Gly Gly His Lys Tyr Gln Gln Asn Ala Glu Gln Tyr Gly Gly Thr
          1285   1290   1295

Arg Asp Tyr Trp Gln Gly Asn Gly Tyr Trp Asp Pro Arg Ser Gly Arg
          1300   1305   1310

Pro Pro Gly Thr Gly Val Val Tyr Asp Arg Thr Gln Gly Gln Val Pro
          1315   1320   1325

Asp Ser Leu Thr Asp Asp Arg Glu Glu Glu Glu Asn Trp Asp Gln Gln
          1330   1335   1340

Asp Gly Ser His Phe Ser Asp Gln Ser Asp Lys Phe Leu Leu Ser Leu
1345   1350   1355   1360

Gln Lys Asp Lys Gly Ser Val Gln Ala Pro Glu Ile Ser Ser Asn Ser
          1365   1370   1375

Ile Lys Asp Thr Leu Ala Val Asn Glu Lys Lys Asp Phe
          1380   1385

<210> 325

<211> 134

<212> PRT

<213> Homo sapiens

<400> 325

```
Met Val Gly Leu Leu Phe His Ala Pro Lys Ala Pro Glu Met Ala Pro
 1               5                  10                  15
Leu Arg Cys Cys Ile Met Asn Lys Ile Ile Met Val Arg Arg Pro Lys
                20                  25                  30
Gln Ser Thr Ala Asp Tyr Gly Met Arg Thr Ser Gly Pro Val Glu Ser
                35                  40                  45
Gly Leu Ser Ala Asp Ser Leu Gln Leu Leu Cys Ser Tyr Ala Ala Ile
        50                  55                  60
Lys Asn Ser Ala Glu Leu Leu Met Val Gly Pro Gln Gly Met Arg Pro
65                  70                  75                  80
Ala Thr Gly Gln Asp Leu Leu Cys Arg Pro Cys Leu Ser His Asp Pro
                85                  90                  95
Pro Gly Pro Leu His Pro Pro Arg Gly Leu Ser Gly Ser Ser Ser Leu
                100                 105                 110
Leu Ile Ser Pro Arg Leu Gln Asp Val Ser Leu Gln Leu Val His Pro
                115                 120                 125
Thr Pro Glu Glu Ser Phe
        130
```


<210> 326

<211> 743

<212> PRT

<213> Homo sapiens

<400> 326

```
Met Ser Ser Leu Ala Ala Lys Arg Leu Gly Met Asn Arg Arg Pro Ala
1               5                   10                  15
Gly Ser Gly Gly Gly Gly Gly Glu Ala Ala Thr Trp Gly His Arg Phe
                20                  25                  30
Trp Arg Pro Gln Glu Arg Pro Thr Asp Arg Asn Gln Gly Glu Met Ala
            35                  40                  45
His Thr Cys Arg Gly Thr Ile Asn Leu Ser Thr Ala His Ile Asp Thr
        50                  55                  60
Glu Asp Ser Cys Gly Ile Leu Leu Thr Ser Gly Ala Arg Ser Tyr His
65                  70                  75                  80
Leu Lys Ala Ser Ser Glu Val Asp Arg Gln Gln Trp Ile Thr Ala Leu
                85                  90                  95
Glu Leu Ala Lys Ala Lys Ala Val Arg Val Met Asn Thr His Ser Asp
                100                 105                 110
Asp Ser Gly Asp Asp Asp Glu Ala Thr Thr Pro Ala Asp Lys Ser Glu
            115                 120                 125
Leu His His Thr Leu Lys Asn Leu Ser Leu Lys Leu Asp Asp Leu Ser
        130                 135                 140
Thr Cys Asn Asp Leu Ile Ala Lys His Gly Ala Ala Leu Gln Arg Ser
145                 150                 155                 160
Leu Thr Glu Leu Asp Gly Leu Lys Ile Pro Ser Glu Ser Gly Glu Lys
                165                 170                 175
Leu Lys Val Val Asn Glu Arg Ala Thr Leu Phe Arg Ile Thr Ser Asn
                180                 185                 190
Ala Met Ile Asn Ala Cys Arg Asp Phe Leu Glu Leu Ala Glu Ile His
        195                 200                 205
Ser Arg Lys Trp Gln Arg Ala Leu Gln Tyr Glu Gln Glu Gln Arg Val
```

```
            210                215                220
His Leu Glu Glu Thr Ile Glu Gln Leu Ala Lys Gln His Asn Ser Leu
225                230                235                240
Glu Arg Ala Phe His Ser Ala Pro Gly Arg Pro Ala Asn Pro Ser Lys
                   245                250                255
Ser Phe Ile Glu Gly Ser Leu Leu Thr Pro Lys Gly Glu Asp Ser Glu
                   260                265                270
Glu Asp Glu Asp Thr Glu Tyr Phe Asp Ala Met Glu Asp Ser Thr Ser
                   275                280                285
Phe Ile Thr Val Ile Thr Glu Ala Lys Glu Asp Ser Arg Lys Ala Glu
            290                295                300
Gly Ser Thr Gly Thr Ser Ser Val Asp Trp Ser Ser Ala Asp Asn Val
305                310                315                320
Leu Asp Gly Ala Ser Leu Val Pro Lys Gly Ser Ser Lys Val Lys Arg
                   325                330                335
Arg Val Arg Ile Pro Asn Lys Pro Asn Tyr Ser Leu Asn Leu Trp Ser
                   340                345                350
Ile Met Lys Asn Cys Ile Gly Arg Glu Leu Ser Arg Ile Pro Met Pro
                   355                360                365
Val Asn Phe Asn Glu Pro Leu Ser Met Leu Gln Arg Leu Thr Glu Asp
            370                375                380
Leu Glu Tyr His His Leu Leu Asp Lys Ala Val His Cys Thr Ser Ser
385                390                395                400
Val Glu Gln Met Cys Leu Val Ala Ala Phe Ser Val Ser Ser Tyr Ser
                   405                410                415
Thr Thr Val His Arg Ile Ala Lys Pro Phe Asn Pro Met Leu Gly Glu
            420                425                430
Thr Phe Glu Leu Asp Arg Leu Asp Asp Met Gly Leu Arg Ser Leu Cys
            435                440                445
```

Glu Gln Val Ser His His Pro Pro Ser Ala Ala His Tyr Val Phe Ser
　　　450　　　　　　　　　455　　　　　　　　460

Lys His Gly Trp Ser Leu Trp Gln Glu Ile Thr Ile Ser Ser Lys Phe
465　　　　　　　　470　　　　　　　475　　　　　　　　480

Arg Gly Lys Tyr Ile Ser Ile Met Pro Leu Gly Ala Ile His Leu Glu
　　　　　　　　485　　　　　　　490　　　　　　　495

Phe Gln Ala Ser Gly Asn His Tyr Val Trp Arg Lys Ser Thr Ser Thr
　　　　　　　500　　　　　　　505　　　　　　　510

Val His Asn Ile Ile Val Gly Lys Leu Trp Ile Asp Gln Ser Gly Asp
　　　　　　515　　　　　　520　　　　　　　525

Ile Glu Ile Val Asn His Lys Thr Asn Asp Arg Cys Gln Leu Lys Phe
　　　530　　　　　　　535　　　　　　540

Leu Pro Tyr Ser Tyr Phe Ser Lys Glu Ala Ala Arg Lys Val Thr Gly
545　　　　　　　　550　　　　　　　555　　　　　　　　560

Val Val Ser Asp Ser Gln Gly Lys Ala His Tyr Val Leu Ser Gly Ser
　　　　　　　565　　　　　　　570　　　　　　　575

Trp Asp Glu Gln Met Glu Cys Ser Lys Val Met His Ser Ser Pro Ser
　　　　　　　580　　　　　　　585　　　　　　　590

Ser Pro Ser Ser Asp Gly Lys Gln Lys Thr Val Tyr Gln Thr Leu Ser
　　　　595　　　　　　　600　　　　　　　605

Ala Lys Leu Leu Trp Lys Lys Tyr Pro Leu Pro Glu Asn Ala Glu Asn
　　　610　　　　　　　615　　　　　　　620

Met Tyr Tyr Phe Ser Glu Leu Ala Leu Thr Leu Asn Glu His Glu Glu
625　　　　　　　　630　　　　　　　635　　　　　　　　640

Gly Val Ala Pro Thr Asp Ser Arg Leu Arg Pro Asp Gln Arg Leu Met
　　　　　　　645　　　　　　　650　　　　　　　655

Glu Lys Gly Arg Trp Asp Glu Ala Asn Thr Glu Lys Gln Arg Leu Glu
　　　　　　660　　　　　　　665　　　　　　　670

Glu Lys Gln Arg Leu Ser Arg Arg Arg Arg Leu Glu Ala Cys Gly Pro

```
            675              680              685
Gly Ser Ser Cys Ser Ser Glu Glu Glu Lys Glu Ala Asp Ala Tyr Thr
    690              695              700
Pro Leu Trp Phe Glu Lys Arg Leu Asp Pro Leu Thr Gly Glu Met Ala
705              710              715              720
Cys Val Tyr Lys Gly Gly Tyr Trp Glu Ala Lys Glu Lys Gln Asp Trp
                725              730              735
His Met Cys Pro Asn Ile Phe
                740
```

<210> 327

<211> 577

<212> PRT

<213> Homo sapiens

<400> 327

```
Met Glu Asn Glu Arg Thr Lys Asp Leu Ile Ile Glu Gln Arg Phe His
1               5                10               15
Arg Thr Ile Ile Gly Gln Lys Gly Glu Arg Ile Arg Glu Ile Arg Asp
                20               25               30
Lys Phe Pro Glu Val Ile Ile Asn Phe Pro Asp Pro Ala Gln Lys Ser
        35               40               45
Asp Ile Val Gln Leu Arg Gly Pro Lys Asn Glu Val Glu Lys Cys Thr
    50               55               60
Lys Tyr Met Gln Lys Met Val Ala Asp Leu Val Glu Asn Ser Tyr Ser
65               70               75               80
Ile Ser Val Pro Ile Phe Lys Gln Phe His Lys Asn Ile Ile Gly Lys
                85               90               95
```

Gly Gly Ala Asn Ile Lys Lys Ile Arg Glu Glu Ser Asn Thr Lys Ile
            100   105   110

Asp Leu Pro Ala Glu Asn Ser Asn Ser Glu Thr Ile Ile Ile Thr Gly
            115   120   125

Lys Arg Ala Asn Cys Glu Ala Ala Arg Ser Arg Ile Leu Ser Ile Gln
            130   135   140

Lys Asp Leu Ala Asn Ile Ala Glu Val Glu Val Ser Ile Pro Ala Lys
145   150   155   160

Leu His Asn Ser Leu Ile Gly Thr Lys Gly Arg Leu Ile Arg Ser Ile
                 165   170   175

Met Glu Glu Cys Gly Gly Val His Ile His Phe Pro Val Glu Gly Ser
                 180   185   190

Gly Ser Asp Thr Val Val Ile Arg Gly Pro Ser Ser Asp Val Glu Lys
            195   200   205

Ala Lys Lys Gln Leu Leu His Leu Ala Glu Glu Lys Gln Thr Lys Ser
            210   215   220

Phe Thr Val Asp Ile Arg Ala Lys Pro Glu Tyr His Lys Phe Leu Ile
225   230   235   240

Gly Lys Gly Gly Gly Lys Ile Arg Lys Val Arg Asp Ser Thr Gly Ala
                 245   250   255

Arg Val Ile Phe Pro Ala Ala Glu Asp Lys Asp Gln Asp Leu Ile Thr
            260   265   270

Ile Ile Gly Lys Glu Asp Ala Val Arg Glu Ala Gln Lys Glu Leu Glu
            275   280   285

Ala Leu Ile Gln Asn Leu Asp Asn Val Val Glu Asp Ser Met Leu Val
            290   295   300

Asp Pro Lys His His Arg His Phe Val Ile Arg Arg Gly Gln Val Leu
305   310   315   320

Arg Glu Ile Ala Glu Glu Tyr Gly Gly Val Met Val Ser Phe Pro Arg

```
                  325              330              335
Ser Gly Thr Gln Ser Asp Lys Val Thr Leu Lys Gly Ala Lys Asp Cys
              340              345              350
Val Glu Ala Ala Lys Lys Arg Ile Gln Glu Ile Ile Glu Asp Leu Glu
          355              360              365
Ala Gln Val Thr Leu Glu Cys Ala Ile Pro Gln Lys Phe His Arg Ser
      370              375              380
Val Met Gly Pro Lys Gly Ser Arg Ile Gln Gln Ile Thr Arg Asp Phe
385              390              395              400
Ser Val Gln Ile Lys Phe Pro Asp Arg Glu Glu Asn Ala Val His Ser
                  405              410              415
Thr Glu Pro Val Val Gln Glu Asn Gly Asp Glu Ala Gly Glu Gly Arg
              420              425              430
Glu Ala Lys Asp Cys Asp Pro Gly Ser Pro Arg Arg Cys Asp Ile Ile
          435              440              445
Ile Ile Ser Gly Arg Lys Glu Lys Cys Glu Ala Ala Lys Glu Ala Leu
      450              455              460
Glu Ala Leu Val Pro Val Thr Ile Glu Val Glu Val Pro Phe Asn Leu
465              470              475              480
His Arg Tyr Val Ile Gly Gln Lys Gly Ser Gly Ile Arg Lys Met Met
                  485              490              495
Asp Glu Phe Glu Val Asp Pro Phe Pro Gly Arg Pro Cys His Arg Ser
              500              505              510
Gly Leu Ser His Pro Leu Pro Ser Ala Ser Val Leu Ser Gln Leu Pro
          515              520              525
Val Asp Ser Ala Ser Ser Cys Ser Asp Trp Ala Leu Thr Ser Leu His
      530              535              540
Gly Gly Trp Pro Ser Leu Ser Pro Leu Leu Gly Pro Arg Ala Asn Gly
545              550              555              560
```

Leu Phe Pro Val Leu Trp Gly Pro Glu Arg Gln Val Ser Pro Leu Phe
　　　　　　　　　　565　　　　　　　　570　　　　　　　　575

Thr

<210> 328

<211> 121

<212> PRT

<213> Homo sapiens

<400> 328

Met Val Ala Asp Leu Ile Asn Val Gln Ile Thr Ser Gly Gln Ala Gln
1　　　　　　　5　　　　　　　　10　　　　　　　　15

Ser Ala Leu Phe Pro Pro Ser Pro Gln Leu Trp Leu Met Ser Ser Pro
　　　　　　　20　　　　　　　　25　　　　　　　　30

Phe Leu Pro Trp Pro Arg His Gly Glu Ser Ser Ile Gly Lys Ala Lys
　　　　　　　35　　　　　　　　40　　　　　　　　45

Val Ser Ser Arg Lys Thr Glu Gly Cys Ala Ser Pro Leu Glu Pro Leu
　　　　50　　　　　　　　55　　　　　　　　60

Pro Ser Trp Pro Gly Leu Leu Pro Val Ser Val Lys Lys Lys Lys Lys
65　　　　　　　　70　　　　　　　　75　　　　　　　　80

Lys Lys Lys Ser Asp Met Gln Leu Leu Ser Thr Cys Cys Met Ser Ser
　　　　　　　85　　　　　　　　90　　　　　　　　95

Met Val Arg Asp Ala Glu Lys Tyr Lys Ala Val Ser Gly Gly Gln Val
　　　　　　　100　　　　　　　　105　　　　　　　110

Glu Tyr Gln Leu His His Leu Lys Thr
　　　　　　　115　　　　　　　　120

<210> 329

<211> 202

<212> PRT

<213> Homo sapiens

<400> 329

Met Arg Trp Gly Leu Val Pro Ser Trp Val Lys Glu Pro Lys Lys Phe
1   5   10   15

Thr Leu Leu Ile Asn Ala Arg Ser Glu Thr Val Arg Asp Lys Pro Ala
            20   25   30

Phe Lys Asn Ala Met Lys Arg Arg Arg Val Leu Val Pro Ser Asp Gly
        35   40   45

Tyr Tyr Glu Trp Gln Asp Lys Asp Gly Arg Lys Arg Pro Phe Phe Ile
    50   55   60

His Arg Arg Asp Gly Gln Pro Thr Gly Phe Ala Ala Leu Ala Glu Thr
65   70   75   80

Trp Met Gly Pro Asn Gly Glu Glu Phe Asp Ser Val Ala Ile Val Thr
                85   90   95

Thr Gln Ala Ser Pro Asp Leu Ala Glu Leu His His Arg Val Pro Val
                100   105   110

Thr Ile Ala Pro Asp Asp Phe Glu Arg Trp Leu Asp Gly Arg Ala Asn
            115   120   125

Asp Val Glu Asp Val Met Pro Leu Leu Arg Ala Pro Arg Val Gly Glu
        130   135   140

Phe Ala Trp His Glu Val Ser Thr Arg Val Asn Arg Val Ala Asn Asp
145   150   155   160

Asp Glu Gln Leu Val Leu Pro Ile Ser Glu Glu Gln Arg Ala Ala Glu
                165   170   175

Ala Pro Lys Pro Val Lys Lys Ala Ala Pro Arg Lys Thr Thr Pro Glu
　　　　　　　　180　　　　　　　　　185　　　　　　　　190

Pro Glu Asp Glu Gly Gln Gly Ser Leu Phe
　　　　　　　　195　　　　　　　　200

<210> 330

<211> 339

<212> PRT

<213> Homo sapiens

<400> 330

Met Leu Pro Ser Ala Val Ala Ala His Ala Gly Ala Tyr Trp Asp Val
1　　　　　　　　5　　　　　　　　10　　　　　　　　15

Val Ala Ser Ser Ala Leu Leu Asn Leu Pro Ala Ala Pro Gly Phe Gly
　　　　　　　　20　　　　　　　　25　　　　　　　　30

Asn Leu Gly Lys Ser Phe Leu Ile Glu Asn Leu Leu Arg Val Gly Gly
　　　　　　　　35　　　　　　　　40　　　　　　　　45

Ala Pro Thr Pro Arg Leu Gln Pro Pro Ala Pro His Asp Pro Ala Thr
　　　　　　　　50　　　　　　　　55　　　　　　　　60

Ala Leu Ala Thr Ala Gly Ala Gln Leu Arg Pro Leu Pro Ala Ser Pro
65　　　　　　　　70　　　　　　　　75　　　　　　　　80

Val Pro Leu Lys Leu Cys Pro Ala Ala Glu Gln Val Ser Pro Ala Gly
　　　　　　　　85　　　　　　　　90　　　　　　　　95

Ala Pro Tyr Gly Thr Arg Trp Ala Phe Gln Val Leu Ser Pro Ser Ala
　　　　　　　　100　　　　　　　　105　　　　　　　　110

Asp Ser Ala Arg Leu Pro Gly Arg Ala Pro Gly Asp Arg Asp Cys Thr
　　　　　　　　115　　　　　　　　120　　　　　　　　125

Phe Gln Pro Ser Ala Pro Ala Pro Ser Lys Pro Phe Leu Leu Ser Thr

```
            130                 135                 140
Pro Pro Phe Tyr Ser Ala Cys Cys Gly Gly Ser Cys Arg Arg Pro Ala
145                 150                 155                 160
Ser Ser Thr Ala Phe Pro Arg Glu Glu Ser Val Leu Pro Leu Leu Thr
                    165                 170                 175
Gln Asp Ser Asn Ser Lys Ala Arg Arg Gly Ile Leu Arg Arg Ala Val
                    180                 185                 190
Phe Ser Glu Asp Gln Arg Lys Ala Leu Glu Lys Met Phe Gln Lys Gln
            195                 200                 205
Lys Tyr Ile Ser Lys Thr Asp Arg Lys Lys Leu Ala Ile Asn Leu Gly
            210                 215                 220
Leu Lys Glu Ser Gln Val Lys Ile Trp Phe Gln Asn Arg Arg Met Lys
225                 230                 235                 240
Trp Arg Asn Ser Lys Glu Lys Glu Val Leu Ser Asn Arg Cys Ile Gln
                    245                 250                 255
Glu Val Gly Leu Gln Glu Asp Pro Leu Ser Arg Ser Ala Leu Gly Phe
                    260                 265                 270
Pro Ser Pro Cys Pro Ser Ile Trp Asp Val Pro Gln Gln His Ser Ser
            275                 280                 285
Pro Arg Trp Arg Glu Asn Ser Pro Glu Pro Ser Glu Arg Leu Ile Gln
            290                 295                 300
Glu Ser Ser Gly Ala Pro Pro Pro Glu Ala Asn Ser Leu Gln Gly Ala
305                 310                 315                 320
Leu Tyr Leu Cys Ser Glu Glu Glu Ala Gly Ser Lys Gly Val Leu Thr
            325                 330                 335
Gly Ala Val
```

<210> 331

<211> 259

<212> PRT

<213> Homo sapiens

<400> 331

Met Val Val Gln Gly Lys Arg Met Arg Lys Glu Thr Trp Gly Tyr Phe
1   5   10   15

Cys Ser Lys Trp Asn Leu Leu Glu Leu Ala Ile Ile Leu Ala Ser Trp
                20   25   30

Ser Ala Leu Ala Val Phe Val Lys Arg Ala Val Leu Ala Glu Arg Asp
                35   40   45

Leu Gln Arg Cys Arg Asn His Arg Glu Glu Gly Ile Ser Phe Ser Glu
            50   55   60

Thr Ala Ala Ala Asp Ala Ala Leu Gly Tyr Ile Ile Val Phe Leu Val
65   70   75   80

Leu Leu Ser Thr Val Lys Leu Trp His Leu Leu Arg Leu Asn Pro Lys
                85   90   95

Met Asn Met Ile Thr Ala Ala Leu Arg Arg Ala Trp Gly Asp Ile Ser
                100   105   110

Gly Phe Ile Ile Val Ile Leu Thr Met Leu Leu Ala Tyr Ser Ile Ala
                115   120   125

Ser Asn Leu Ile Phe Gly Trp Lys Leu Arg Ser Tyr Lys Thr Leu Phe
                130   135   140

Asp Ala Ala Glu Thr Met Val Ser Leu Gln Leu Gly Ile Phe Asn Tyr
145   150   155   160

Glu Glu Val Leu Asp Tyr Ser Pro Val Leu Gly Ser Phe Leu Ile Gly
                165   170   175

Ser Cys Ile Val Phe Met Thr Phe Val Val Leu Asn Leu Phe Ile Ser

```
                    180                   185                   190
Val Ile Leu Val Ala Phe Ser Glu Glu Gln Lys Tyr Tyr Gln Leu Ser
              195                   200                   205
Glu Glu Gly Glu Ile Val Asp Leu Leu Leu Met Lys Ile Leu Ser Phe
              210                   215                   220
Leu Gly Ile Lys Ser Lys Arg Glu Glu Pro Gly Ser Ser Arg Glu Gln
225                   230                   235                   240
Pro Gly Ser Leu Ser Gln Thr Arg His Ser Arg Pro Ala Gln Ala Leu
                    245                   250                   255
Pro Lys Asp
```

<210> 332

<211> 722

<212> PRT

<213> Homo sapiens

<400> 332

```
Met Met Lys Glu Val Leu Ser Thr Gly Gln Gly Asn Thr Glu Val Ile
1                   5                   10                  15
His Thr Gly Thr Leu Gln Arg Tyr Gln Ser Tyr His Ile Gly Asp Phe
              20                  25                  30
Cys Phe Gln Glu Ile Glu Lys Glu Ile His Asp Ile Glu Phe Gln Cys
              35                  40                  45
Gln Glu Asp Glu Arg Asn Gly His Glu Ala Pro Met Thr Lys Ile Lys
         50                  55                  60
Lys Leu Thr Gly Ser Thr Asp Gln His Asp His Arg His Ala Gly Asn
65                  70                  75                  80
```

Lys Pro Ile Lys Asp Gln Leu Gly Ser Ser Phe Tyr Ser His Leu Pro
　　　　　　　　　　　85　　　　　　　　　90　　　　　　　　　95

Glu Leu His Ile Ile Gln Ile Lys Gly Lys Ile Gly Asn Gln Phe Glu
　　　　　　　　　100　　　　　　　　105　　　　　　　　110

Lys Ser Thr Ser Asp Ala Pro Ser Val Ser Thr Ser Gln Arg Ile Ser
　　　　　　　　　115　　　　　　　　120　　　　　　　　125

Pro Arg Pro Gln Ile His Ile Ser Asn Asn Tyr Gly Asn Asn Ser Pro
　　　　　　　　　130　　　　　　　　135　　　　　　　　140

Asn Ser Ser Leu Leu Pro Gln Lys Gln Glu Val Tyr Met Arg Glu Lys
145　　　　　　　　　150　　　　　　　　155　　　　　　　　160

Ser Phe Gln Cys Asn Glu Ser Gly Lys Ala Phe Asn Cys Ser Ser Leu
　　　　　　　　　165　　　　　　　　170　　　　　　　　175

Leu Arg Lys His Gln Ile Pro His Leu Gly Asp Lys Gln Tyr Lys Cys
　　　　　　　　　180　　　　　　　　185　　　　　　　　190

Asp Val Cys Gly Lys Leu Phe Asn His Lys Gln Tyr Leu Thr Cys His
　　　　　　　　　195　　　　　　　　200　　　　　　　　205

Arg Arg Cys His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly
　　　　　　　　　210　　　　　　　　215　　　　　　　　220

Lys Ser Phe Ser Gln Val Ser Ser Leu Thr Cys His Arg Arg Leu His
225　　　　　　　　　230　　　　　　　　235　　　　　　　　240

Thr Ala Val Lys Ser His Lys Cys Asn Glu Cys Gly Lys Ile Phe Gly
　　　　　　　　　245　　　　　　　　250　　　　　　　　255

Gln Asn Ser Ala Leu Val Ile His Lys Ala Ile His Thr Gly Glu Lys
　　　　　　　　　260　　　　　　　　265　　　　　　　　270

Pro Tyr Lys Cys Asn Glu Cys Asp Lys Ala Phe Asn Gln Gln Ser Asn
　　　　　　　　　275　　　　　　　　280　　　　　　　　285

Leu Ala Arg His Arg Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys
　　　　　　　　　290　　　　　　　　295　　　　　　　　300

Glu Glu Cys Asp Lys Val Phe Ser Arg Lys Ser Thr Leu Glu Ser His

305　　　　　　　　310　　　　　　　　315　　　　　　　　320

Lys Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Lys Val Cys Asp

　　　　　　　　325　　　　　　　　330　　　　　　　　335

Thr Ala Phe Thr Trp Asn Ser Gln Leu Ala Arg His Lys Arg Ile His

　　　　　　　　340　　　　　　　　345　　　　　　　　350

Thr Gly Glu Lys Thr Tyr Lys Cys Asn Glu Cys Gly Lys Thr Phe Ser

　　　　　　　　355　　　　　　　　360　　　　　　　　365

His Lys Ser Ser Leu Val Cys His His Arg Leu His Gly Gly Glu Lys

　　　　　　　　370　　　　　　　　375　　　　　　　　380

Ser Tyr Lys Cys Lys Val Cys Asp Lys Ala Phe Ala Trp Asn Ser His

385　　　　　　　　390　　　　　　　　395　　　　　　　　400

Leu Val Arg His Thr Arg Ile His Ser Gly Gly Lys Pro Tyr Lys Cys

　　　　　　　　405　　　　　　　　410　　　　　　　　415

Asn Glu Cys Gly Lys Thr Phe Gly Gln Asn Ser Asp Leu Leu Ile His

　　　　　　　　420　　　　　　　　425　　　　　　　　430

Lys Ser Ile His Thr Gly Glu Gln Pro Tyr Lys Tyr Glu Glu Cys Glu

　　　　　　　　435　　　　　　　　440　　　　　　　　445

Lys Val Phe Ser Cys Gly Ser Thr Leu Glu Thr His Lys Ile Ile His

　　　　　　　　450　　　　　　　　455　　　　　　　　460

Thr Gly Glu Lys Pro Tyr Lys Cys Lys Val Cys Asp Lys Ala Phe Ala

465　　　　　　　　470　　　　　　　　475　　　　　　　　480

Cys His Ser Tyr Leu Ala Lys His Thr Arg Ile His Ser Gly Glu Lys

　　　　　　　　485　　　　　　　　490　　　　　　　　495

Pro Tyr Lys Cys Asn Glu Cys Ser Lys Thr Phe His Leu Arg Ser Tyr

　　　　　　　　500　　　　　　　　505　　　　　　　　510

Leu Ala Ser His Arg Arg Val His Ser Gly Glu Lys Pro Tyr Lys Cys

　　　　　　　　515　　　　　　　　520　　　　　　　　525

Asn Glu Cys Ser Lys Thr Phe Ser Gln Arg Ser Tyr Leu His Cys His

　　　　　　　　530　　　　　　　　535　　　　　　　　540

Arg Arg Leu His Ser Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly
545   550   555   560

Lys Thr Phe Ser His Lys Pro Ser Leu Val His His Arg Arg Leu His
                565   570   575

Thr Gly Glu Lys Ser Tyr Lys Cys Thr Val Cys Asp Lys Ala Phe Val
            580   585   590

Arg Asn Ser Tyr Leu Ala Arg His Thr Arg Ile His Thr Ala Glu Lys
            595   600   605

Pro Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Asn Gln Gln Ser Gln
        610   615   620

Leu Ser Leu His His Arg Ile His Ala Gly Glu Lys Leu Tyr Lys Cys
625   630   635   640

Glu Thr Cys Asp Lys Val Phe Ser Arg Lys Ser His Leu Lys Arg His
                645   650   655

Arg Arg Ile His Pro Gly Lys Lys Pro Tyr Lys Cys Lys Val Cys Asp
            660   665   670

Lys Thr Phe Gly Ser Asp Ser His Leu Lys Gln His Thr Gly Leu His
            675   680   685

Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Ser
        690   695   700

Lys Gln Ser Thr Leu Ile His His Gln Ala Val His Gly Val Gly Lys
705   710   715   720

Leu Asp

<210> 333

<211> 422

<212> PRT

<213> Homo sapiens

<400> 333

Met Phe Gln Thr Ala Trp Arg Gln Glu Pro Val Thr Phe Glu Asp Val
1   5   10   15

Ala Val Tyr Phe Thr Gln Asn Glu Trp Ala Ser Leu Asp Ser Val Gln
            20   25   30

Arg Ala Leu Tyr Arg Glu Val Met Leu Glu Asn Tyr Ala Asn Val Ala
            35   40   45

Ser Leu Ala Phe Pro Phe Thr Thr Pro Val Leu Val Ser Gln Leu Glu
            50   55   60

Gln Gly Glu Leu Pro Trp Gly Leu Asp Pro Trp Glu Pro Met Gly Arg
65   70   75   80

Glu Ala Leu Arg Gly Ile Cys Pro Gly Asp Glu Ala Arg Thr Glu Lys
                85   90   95

Glu Gly Leu Thr Pro Lys Asp His Val Ser Lys Glu Thr Glu Ser Phe
            100   105   110

Arg Leu Met Val Gly Gly Leu Pro Gly Asn Val Ser Gln His Leu Asp
            115   120   125

Phe Gly Ser Ser Leu Glu Gln Pro Gln Gly His Trp Ile Ile Lys Thr
            130   135   140

Lys Ser Lys Arg Arg His Phe Thr Asp Thr Ser Ala Arg His His Glu
145   150   155   160

Ala Tyr Glu Val Lys Asn Gly Glu Lys Phe Glu Lys Leu Gly Lys Asn
                165   170   175

Ile Ser Val Ser Thr Gln Leu Thr Thr Asn Gln Thr Asn Pro Ser Gly
            180   185   190

Gln Ile Ser Tyr Glu Cys Gly Gln Cys Gly Arg Tyr Phe Ile Gln Met
            195   200   205

Ala Asp Phe His Arg His Glu Lys Cys His Thr Gly Glu Lys Ser Phe
210   215   220

Glu Cys Lys Glu Cys Gly Lys Tyr Phe Arg Tyr Asn Ser Leu Leu Ile
225   230   235   240

Arg His Gln Ile Ile His Thr Gly Lys Lys Pro Phe Lys Cys Lys Glu
                245   250   255

Cys Gly Lys Gly Leu Ser Ser Asp Thr Ala Leu Ile Gln His Gln Arg
                260   265   270

Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Lys Ala
                275   280   285

Phe Ser Ser Ser Ser Val Phe Leu Gln His Gln Arg Phe His Thr Gly
                290   295   300

Glu Lys Leu Tyr Glu Cys Asn Glu Cys Trp Lys Thr Phe Ser Cys Ser
305   310   315   320

Ser Ser Phe Thr Val His Gln Arg Met His Thr Gly Glu Lys Pro Tyr
                325   330   335

Glu Cys Lys Glu Cys Gly Lys Arg Leu Ser Ser Asn Thr Ala Leu Thr
                340   345   350

Gln His Gln Arg Ile His Thr Gly Glu Lys Pro Phe Glu Cys Lys Glu
                355   360   365

Cys Gly Lys Ala Phe Asn Gln Lys Ile Thr Leu Ile Gln His Gln Arg
                370   375   380

Val His Thr Gly Glu Lys Pro Tyr Glu Cys Lys Val Cys Gly Lys Thr
385   390   395   400

Phe Ser Trp Cys Gly Arg Phe Ile Leu His Gln Lys Leu His Thr Gln
                405   410   415

Lys Thr Pro Val Gln Ala
                420

<210> 334

<211> 446

<212> PRT

<213> Homo sapiens

<400> 334

Met Glu Arg Ile Pro Val Ser Val Asp Phe Trp Val Val Cys Cys Ala
1   5   10   15

Val Leu Lys Cys Asn Pro Gly Ile Pro Lys Arg Met Ser Thr Leu Cys
            20   25   30

Phe Gly Phe Ser Asp Glu Phe His Pro Phe Ile Glu Ala Leu Leu Pro
        35   40   45

His Val Arg Ala Ile Ala Tyr Thr Trp Phe Asn Leu Gln Ala Gly Lys
    50   55   60

Arg Lys Tyr Phe Lys Lys His Glu Lys Arg Met Ser Lys Asp Glu Glu
65   70   75   80

Arg Ala Val Lys Asp Glu Leu Leu Ser Glu Lys Pro Glu Ile Lys Gln
            85   90   95

Lys Trp Ala Ser Arg Leu Leu Ala Lys Leu Arg Lys Asp Ile Arg Gln
            100   105   110

Glu Tyr Arg Glu Asp Phe Val Leu Thr Val Thr Gly Lys Lys His Pro
        115   120   125

Cys Cys Val Leu Ser Asn Pro Asp Gln Lys Gly Lys Ile Arg Arg Ile
    130   135   140

Asp Cys Leu Arg Gln Ala Asp Lys Val Trp Arg Leu Asp Leu Val Met
145   150   155   160

Val Ile Leu Phe Lys Gly Ile Pro Leu Glu Ser Thr Asp Gly Glu Arg
            165   170   175

```
Leu Met Lys Ser Pro His Cys Thr Asn Pro Ala Leu Cys Val Gln Pro
            180             185             190
His His Ile Thr Val Ser Val Lys Glu Leu Asp Leu Phe Leu Ala Tyr
            195             200             205
Tyr Val Gln Glu Gln Asp Ser Gly Gln Ser Gly Ser Pro Ser His Ser
            210             215             220
Asp Pro Ala Lys Asn Pro Pro Gly Tyr Leu Glu Asp Ser Phe Val Lys
225             230             235             240
Ser Gly Val Phe Asn Val Ser Glu Leu Val Arg Val Ser Arg Thr Pro
                245             250             255
Ile Thr Gln Gly Thr Gly Val Asn Phe Pro Ile Gly Glu Ile Pro Ser
            260             265             270
Gln Pro Tyr Tyr His Asp Met Asn Ser Gly Val Asn Leu Gln Arg Ser
            275             280             285
Leu Ser Ser Pro Pro Ser Ser Lys Arg Pro Lys Thr Ile Ser Ile Asp
    290             295             300
Glu Asn Met Glu Pro Ser Pro Thr Gly Asp Phe Tyr Pro Ser Pro Ser
305             310             315             320
Ser Pro Ala Ala Gly Ser Arg Thr Trp His Glu Arg Asp Gln Asp Met
            325             330             335
Ser Ser Pro Thr Thr Met Lys Lys Pro Glu Lys Pro Leu Phe Ser Ser
            340             345             350
Ala Ser Pro Gln Asp Ser Ser Pro Arg Leu Ser Thr Phe Pro Gln His
            355             360             365
His His Pro Gly Ile Pro Gly Val Ala His Ser Val Ile Ser Thr Arg
            370             375             380
Thr Pro Pro Pro Pro Ser Pro Leu Pro Phe Pro Thr Gln Ala Ile Leu
385             390             395             400
Pro Pro Ala Pro Ser Ser Tyr Phe Ser His Pro Thr Ile Arg Tyr Pro
```

```
                405               410               415
Pro His Leu Asn Pro Gln Asp Thr Leu Lys Asn Tyr Val Pro Ser Tyr
            420               425               430
Asp Pro Ser Ser Pro Gln Thr Ser Gln Ser Trp Tyr Leu Gly
            435               440               445
```

<210> 335

<211> 488

<212> PRT

<213> Homo sapiens

<400> 335

```
Met Arg Ile Ile Thr Ala Pro Ala Ser Lys Val Ser Arg Gly Ser Asn
1               5               10              15
Glu Leu Met Ile Leu Ala Arg Arg Ser Asp Arg Gly Ser Pro Thr Ser
                20              25              30
Pro Ala His Ser Leu Ser Arg Lys Ser Pro Ile Met Tyr Pro Ser Thr
                35              40              45
Thr Met Ala Asn Ala Pro Gly Leu Val Ser Cys Thr Phe Phe Leu Ala
        50              55              60
Val Asn Gly Leu Tyr Ser Ser Ser Asp Asp Val Ile Glu Leu Thr Pro
65              70              75              80
Ser Asn Phe Asn Arg Glu Val Ile Gln Ser Asp Ser Leu Trp Leu Val
                85              90              95
Glu Phe Tyr Ala Pro Trp Cys Gly His Cys Gln Arg Leu Thr Pro Glu
                100             105             110
Trp Lys Lys Ala Ala Thr Ala Leu Lys Asp Val Val Lys Val Gly Ala
        115             120             125
```

Val Asp Ala Asp Lys His His Ser Leu Gly Gly Gln Tyr Gly Val Gln
130   135   140

Gly Phe Pro Thr Ile Lys Ile Phe Gly Ser Asn Lys Asn Arg Pro Glu
145   150   155   160

Asp Tyr Gln Gly Gly Arg Thr Gly Glu Ala Ile Val Asp Ala Ala Leu
               165   170   175

Ser Ala Leu Arg Gln Leu Val Lys Asp Arg Leu Gly Gly Arg Ser Gly
               180   185   190

Gly Tyr Ser Ser Gly Lys Gln Gly Arg Ser Asp Ser Ser Ser Lys Lys
               195   200   205

Asp Val Ile Glu Leu Thr Asp Asp Ser Phe Asp Lys Asn Val Leu Asp
               210   215   220

Ser Glu Asp Val Trp Met Val Glu Phe Tyr Ala Pro Trp Cys Gly His
225   230   235   240

Cys Lys Asn Leu Glu Pro Glu Trp Ala Ala Ala Ala Ser Glu Val Lys
               245   250   255

Glu Gln Thr Lys Gly Arg Val Lys Leu Ala Ala Val Asp Ala Thr Val
               260   265   270

Asn Gln Val Leu Ala Ser Arg Tyr Gly Ile Arg Gly Phe Pro Thr Ile
               275   280   285

Lys Ile Phe Gln Lys Gly Glu Ser Pro Val Asp Tyr Asp Gly Gly Arg
               290   295   300

Thr Arg Ser Asp Ile Val Ser Arg Ala Leu Asp Leu Phe Ser Asp Asn
305   310   315   320

Ala Pro Pro Pro Glu Leu Leu Glu Ile Ile Asn Glu Asp Ile Ala Lys
               325   330   335

Arg Thr Cys Glu Glu His Gln Leu Cys Val Val Ala Val Leu Pro His
               340   345   350

Ile Leu Asp Thr Gly Ala Ala Gly Arg Asn Ser Tyr Leu Glu Val Leu

```
                355               360               365
Leu Lys Leu Ala Asp Lys Tyr Lys Lys Lys Met Trp Gly Trp Leu Trp
        370               375               380
Thr Glu Ala Gly Ala Gln Ser Glu Leu Glu Thr Ala Leu Gly Ile Gly
385               390               395               400
Gly Phe Gly Tyr Pro Ala Met Ala Ala Ile Asn Ala Arg Lys Met Lys
                    405               410               415
Phe Ala Leu Leu Lys Gly Ser Phe Ser Glu Gln Gly Ile Asn Glu Phe
            420               425               430
Leu Arg Glu Leu Ser Phe Gly Arg Gly Ser Thr Ala Pro Val Gly Gly
        435               440               445
Gly Ala Phe Pro Thr Ile Val Glu Arg Glu Pro Trp Asp Gly Arg Asp
        450               455               460
Gly Glu Leu Pro Val Glu Asp Asp Ile Asp Leu Ser Asp Val Glu Leu
465               470               475               480
Asp Asp Leu Gly Lys Asp Glu Leu
            485
```

<210> 336

<211> 318

<212> PRT

<213> Homo sapiens

<400> 336

```
Met Val Leu Ser Ser Gly Pro Gln Trp Cys Gly Ser Gln Glu Leu Trp
 1               5               10               15
Phe Gly Lys Thr Cys Glu Glu Lys Ser Arg Leu Gly Arg Trp Pro Gly
            20               25               30
```

```
Tyr Leu Asn Gly Gly Arg Met Glu Ser Ser Thr Asn Asp Ile Ile Glu
        35              40              45
Val Ile Val Lys Asp Glu Met Ile Ser Val Glu Glu Ser Ser Gly Asn
        50              55              60
Thr Asp Val Asn Asn Leu Leu Gly Ile His His Lys Ile Leu Asn Glu
65              70              75              80
Gln Ile Phe Tyr Ile Cys Glu Glu Cys Gly Lys Cys Phe Asp Gln Asn
                85              90              95
Glu Asp Phe Asp Gln His Gln Lys Thr His Asn Gly Glu Lys Val Tyr
            100             105             110
Gly Cys Lys Glu Cys Gly Lys Ala Phe Ser Phe Arg Ser His Cys Ile
        115             120             125
Ala His Gln Arg Ile His Ser Gly Val Lys Pro Tyr Glu Cys Gln Glu
        130             135             140
Cys Ala Lys Ala Phe Val Trp Lys Ser Asn Leu Ile Arg His Gln Arg
145             150             155             160
Ile His Thr Gly Glu Lys Pro Phe Glu Cys Lys Glu Cys Gly Lys Gly
            165             170             175
Phe Ser Gln Asn Thr Ser Leu Thr Gln His Gln Arg Ile His Thr Gly
            180             185             190
Glu Lys Pro Tyr Thr Cys Lys Glu Cys Gly Lys Ser Phe Thr Arg Asn
        195             200             205
Pro Ala Leu Leu Arg His Gln Arg Met His Thr Gly Glu Lys Pro Tyr
    210             215             220
Glu Cys Lys Asp Cys Gly Lys Gly Phe Met Trp Asn Ser Asp Leu Ser
225             230             235             240
Gln His Gln Arg Val His Thr Gly Asp Lys Pro His Glu Cys Thr Asp
            245             250             255
Cys Gly Lys Ser Phe Phe Cys Lys Ala His Leu Ile Arg His Gln Arg
```

```
            260               265               270
Ile His Thr Gly Glu Arg Pro Tyr Lys Cys Asn Asp Cys Gly Lys Ala
        275               280               285
Phe Ser Gln Asn Ser Val Leu Ile Lys His Gln Arg Arg His Ala Arg
        290               295               300
Asp Lys Pro Tyr Asn Cys Gln Ile Ser His Leu Leu Glu His
305               310               315
```

<210> 337

<211> 743

<212> PRT

<213> Homo sapiens

<400> 337

```
Met Ile Ser Gln Phe Phe Ile Leu Ser Ser Lys Gly Asp Pro Leu Ile
 1               5                10                15
Tyr Lys Asp Phe Arg Gly Asp Ser Gly Gly Arg Asp Val Ala Glu Leu
                20                25                30
Phe Tyr Arg Lys Leu Thr Gly Leu Pro Gly Asp Glu Ser Pro Val Val
        35                40                45
Met Asp Tyr Gly Tyr Val Gln Thr Thr Ser Thr Glu Met Leu Arg Asn
    50                55                60
Phe Ile Gln Thr Glu Ala Val Val Ser Lys Pro Phe Ser Leu Phe Asp
65                70                75                80
Leu Ser Ser Val Gly Leu Phe Gly Ala Glu Thr Gln Gln Ser Lys Val
                85                90                95
Ala Pro Ser Ser Ala Ala Ser Arg Pro Val Leu Ser Ser Arg Ser Asp
        100               105               110
```

Gln Ser Gln Lys Asn Glu Val Phe Leu Asp Val Val Glu Arg Leu Ser
    115   120   125

Val Leu Ile Ala Ser Asn Gly Ser Leu Leu Lys Val Asp Val Gln Gly
    130   135   140

Glu Ile Arg Leu Lys Ser Phe Leu Pro Ser Gly Ser Glu Met Arg Ile
145   150   155   160

Gly Leu Thr Glu Glu Phe Cys Val Gly Lys Ser Glu Leu Arg Gly Tyr
          165   170   175

Gly Pro Gly Ile Arg Val Asp Glu Val Ser Phe His Ser Ser Val Asn
          180   185   190

Leu Asp Glu Phe Glu Ser His Arg Ile Leu Arg Leu Gln Pro Pro Gln
          195   200   205

Gly Glu Leu Thr Val Met Arg Tyr Gln Leu Ser Asp Asp Leu Pro Ser
    210   215   220

Pro Leu Pro Phe Arg Leu Phe Pro Ser Val Gln Trp Asp Arg Gly Ser
225   230   235   240

Gly Arg Leu Gln Val Tyr Leu Lys Leu Arg Cys Asp Leu Leu Ser Lys
          245   250   255

Ser Gln Ala Leu Asn Val Arg Leu His Leu Pro Leu Pro Arg Gly Val
          260   265   270

Val Ser Leu Ser Gln Glu Leu Ser Ser Pro Glu Gln Lys Ala Glu Leu
          275   280   285

Ala Glu Gly Ala Leu Arg Trp Asp Leu Pro Arg Val Gln Gly Gly Ser
          290   295   300

Gln Leu Ser Gly Leu Phe Gln Ser Arg Lys Gly Ala Asp Leu Asp Arg
305   310   315   320

Glu Lys Lys Ala Ala Glu Cys Lys Val Asp Ser Ile Gly Ser Gly Arg
          325   330   335

Ala Ile Pro Ile Lys Gln Gly Ile Leu Leu Lys Arg Ser Gly Lys Ser

　　　　　　　　340　　　　　　　　　345　　　　　　　　　350

Leu Asn Lys Glu Trp Lys Lys Lys Tyr Val Thr Leu Cys Asp Asn Gly

　　　　　　　355　　　　　　　　　360　　　　　　　　　365

Leu Leu Thr Tyr His Pro Ser Leu His Asp Tyr Met Gln Asn Ile His

　　　　　370　　　　　　　　　375　　　　　　　　　380

Gly Lys Glu Ile Asp Leu Leu Arg Thr Thr Val Lys Val Pro Gly Lys

385　　　　　　　　　390　　　　　　　　　395　　　　　　　　　400

Arg Leu Pro Arg Ala Thr Pro Ala Thr Ala Pro Gly Thr Ser Pro Arg

　　　　　　　　　405　　　　　　　　　410　　　　　　　　　415

Ala Asn Gly Leu Ser Val Glu Arg Ser Asn Thr Gln Leu Gly Gly Gly

　　　　　　　420　　　　　　　　　425　　　　　　　　　430

Thr Glu Ala Glu Glu Ser Phe Glu Phe Val Val Val Ser Leu Thr Gly

　　　　　　435　　　　　　　　　440　　　　　　　　　445

Gln Thr Trp His Phe Glu Ala Ser Thr Ala Glu Glu Arg Glu Leu Trp

　　　　450　　　　　　　　　455　　　　　　　　　460

Val Gln Ser Val Gln Ala Gln Ile Leu Ala Ser Leu Gln Gly Cys Arg

465　　　　　　　　　470　　　　　　　　　475　　　　　　　　　480

Ser Ala Lys Asp Lys Thr Arg Leu Gly Asn Gln Asn Ala Ala Leu Ala

　　　　　　　　　485　　　　　　　　　490　　　　　　　　　495

Val Gln Ala Val Arg Thr Val Arg Gly Asn Ser Phe Cys Ile Asp Cys

　　　　　　　500　　　　　　　　　505　　　　　　　　　510

Asp Ala Pro Asn Pro Asp Trp Ala Ser Leu Asn Leu Gly Ala Leu Met

　　　　　515　　　　　　　　　520　　　　　　　　　525

Cys Ile Glu Cys Ser Gly Ile His Arg His Leu Gly Ala His Leu Ser

　　　　530　　　　　　　　　535　　　　　　　　　540

Arg Val Arg Ser Leu Asp Leu Asp Asp Trp Pro Pro Glu Leu Leu Ala

545　　　　　　　　　550　　　　　　　　　555　　　　　　　　　560

Val Met Thr Ala Met Gly Asn Ala Leu Ala Asn Ser Val Trp Glu Gly

　　　　　　565　　　　　　　　　570　　　　　　　　　575

Ala Leu Gly Gly Tyr Ser Lys Pro Gly Pro Asp Ala Cys Arg Glu Glu
　　　　　　580　　　　　　　　585　　　　　　　　590

Lys Glu Arg Trp Ile Arg Ala Lys Tyr Glu Gln Lys Leu Phe Leu Ala
　　　　　　595　　　　　　　　600　　　　　　　　605

Pro Leu Pro Ser Ser Asp Val Pro Leu Gly Gln Gln Leu Leu Arg Ala
　　　　　　610　　　　　　　　615　　　　　　　　620

Val Val Glu Asp Asp Leu Arg Leu Leu Val Met Leu Leu Ala His Gly
625　　　　　　　　630　　　　　　　　635　　　　　　　　640

Ser Lys Glu Glu Val Asn Glu Thr Tyr Gly Asp Gly Asp Gly Arg Thr
　　　　　　645　　　　　　　　650　　　　　　　　655

Ala Leu His Leu Ser Ser Ala Met Ala Asn Val Val Phe Thr Gln Leu
　　　　　　660　　　　　　　　665　　　　　　　　670

Leu Ile Trp Tyr Gly Val Asp Val Arg Ser Arg Asp Ala Arg Gly Leu
　　　　　　675　　　　　　　　680　　　　　　　　685

Thr Pro Leu Ala Tyr Ala Arg Arg Ala Gly Ser Gln Glu Cys Ala Asp
　　　　　　690　　　　　　　　695　　　　　　　　700

Ile Leu Ile Gln His Gly Cys Pro Gly Glu Gly Cys Gly Leu Ala Pro
705　　　　　　　　710　　　　　　　　715　　　　　　　　720

Thr Pro Asn Arg Glu Pro Ala Asn Gly Thr Asn Pro Ser Ala Glu Leu
　　　　　　725　　　　　　　　730　　　　　　　　735

His Arg Ser Pro Ser Leu Leu
　　　　　　740

<210> 338

<211> 141

<212> PRT

<213> Homo sapiens

●

<400> 338

Met	Gln	Ile	Gln	Glu	Ile	Gln	Arg	Thr	Pro	Leu	Arg	Tyr	Ser	Lys	Arg
1				5					10					15	

Arg	Ser	Thr	Pro	Arg	Pro	Leu	Ile	Ile	Gly	Phe	Ser	Lys	Val	Glu	Leu
			20					25					30		

Leu	Arg	Ala	Ala	Arg	Glu	Lys	Gly	Gln	Val	Thr	Tyr	Lys	Gly	Lys	Pro
			35				40					45			

Ile	Arg	Pro	Thr	Ala	Asp	Phe	Ser	Ala	Glu	Pro	Leu	Gln	Ala	Arg	Arg
		50				55					60				

Asp	Cys	Gly	Pro	Ile	Ser	Asn	Ile	Leu	Lys	Gly	Lys	Asn	Phe	Gln	Pro
65					70					75					80

Arg	Ile	Ser	Tyr	Pro	Ala	Lys	Leu	Ile	Ser	Phe	Ile	Ser	Glu	Gly	Glu
				85					90					95	

Ile	Lys	Ser	Phe	Pro	Asp	Lys	Gln	Met	Leu	Arg	Asp	Phe	Val	Thr	Thr
				100					105					110	

Arg	Pro	Ala	Leu	Gln	Glu	Leu	Leu	Lys	Glu	Ala	Leu	Asn	Met	Glu	Arg
			115				120					125			

Lys	Asn	Gln	Tyr	Gln	Pro	Leu	Gln	Lys	His	Thr	Lys	Ile
		130				135					140	

●

<210> 339

<211> 715

<212> PRT

<213> Homo sapiens

<400> 339

Met	Ala	Thr	Phe	Met	Asp	Pro	Gly	Val	Phe	Pro	Arg	Ala	Asp	Glu	Asp
1				5					10					15	

Glu Asp Lys Glu Asp Asp Phe Arg Ala Pro Leu Tyr Lys Asn Val Asp
                20   25   30

Val Arg Gly Ile Gln Val Arg Met Lys Trp Cys Ala Thr Cys His Phe
                35   40   45

Tyr Arg Pro Pro Arg Cys Ser His Cys Ser Val Cys Asp Asn Cys Val
                50   55   60

Glu Asp Phe Asp His His Cys Pro Trp Val Asn Asn Cys Ile Gly Arg
65   70   75   80

Arg Asn Tyr Arg Tyr Phe Phe Leu Phe Leu Leu Ser Leu Ser Ala His
                      85   90   95

Met Val Gly Val Val Ala Phe Gly Leu Val Tyr Val Leu Asn His Ala
                100   105   110

Glu Gly Leu Gly Ala Ala His Thr Thr Ile Thr Met Ala Val Met Cys
                115   120   125

Val Ala Gly Leu Phe Phe Ile Pro Val Ile Gly Leu Thr Gly Phe His
                130   135   140

Val Val Leu Val Thr Arg Gly Arg Thr Thr Asn Glu Gln Val Thr Gly
145   150   155   160

Lys Phe Arg Gly Gly Val Asn Pro Phe Thr Arg Gly Cys Cys Gly Asn
                      165   170   175

Val Glu His Val Leu Cys Ser Pro Leu Ala Pro Arg Tyr Val Val Glu
                180   185   190

Pro Pro Arg Leu Pro Leu Ala Val Ser Leu Lys Pro Pro Phe Leu Arg
                195   200   205

Pro Glu Leu Leu Asp Arg Ala Ala Pro Leu Lys Val Lys Leu Ser Asp
                210   215   220

Asn Gly Leu Lys Ala Gly Leu Gly Arg Ser Lys Ser Lys Gly Ser Leu
225   230   235   240

Asp Arg Leu Asp Glu Lys Pro Leu Asp Leu Gly Pro Pro Leu Pro Pro

```
                245              250              255
Lys Ile Glu Ala Gly Thr Phe Ser Ser Asp Leu Gln Thr Pro Arg Pro
                260              265              270
Gly Ser Ala Glu Ser Ala Leu Ser Val Gln Arg Thr Ser Pro Pro Thr
                275              280              285
Pro Ala Met Tyr Lys Phe Arg Pro Ala Phe Pro Thr Gly Pro Lys Val
                290              295              300
Pro Phe Cys Gly Pro Gly Glu Gln Val Pro Gly Pro Asp Ser Leu Thr
305              310              315              320
Leu Gly Asp Asp Ser Ile Arg Ser Leu Asp Phe Val Ser Glu Pro Ser
                325              330              335
Leu Asp Leu Pro Asp Tyr Gly Pro Gly Gly Leu His Ala Ala Tyr Pro
                340              345              350
Pro Ser Pro Pro Leu Ser Ala Ser Asp Ala Phe Ser Gly Ala Leu Arg
                355              360              365
Ser Leu Ser Leu Lys Ala Ser Ser Arg Arg Gly Gly Asp His Val Ala
370              375              380
Leu Gln Pro Leu Arg Ser Glu Gly Gly Pro Pro Thr Pro His Arg Ser
385              390              395              400
Ile Phe Ala Pro His Ala Leu Pro Asn Arg Asn Gly Ser Leu Ser Tyr
                405              410              415
Asp Ser Leu Leu Asn Pro Gly Ser Pro Gly Gly His Ala Cys Pro Ala
                420              425              430
His Pro Ala Val Gly Val Ala Gly Tyr His Ser Pro Tyr Leu His Pro
                435              440              445
Gly Ala Thr Gly Asp Pro Pro Arg Pro Leu Pro Arg Ser Phe Ser Pro
                450              455              460
Val Leu Gly Pro Arg Pro Arg Glu Pro Ser Pro Val Arg Tyr Asp Asn
465              470              475              480
```

Leu Ser Arg Thr Ile Met Ala Ser Ile Gln Glu Arg Lys Asp Arg Glu
              485   490   495

Glu Arg Glu Arg Leu Leu Arg Ser Gln Ala Asp Ser Leu Phe Gly Asp
              500   505   510

Ser Gly Val Tyr Asp Ala Pro Ser Ser Tyr Ser Leu Gln Gln Ala Ser
              515   520   525

Val Leu Ser Glu Gly Pro Arg Gly Pro Ala Leu Arg Tyr Gly Ser Arg
              530   535   540

Asp Asp Leu Val Ala Gly Pro Gly Phe Gly Gly Ala Arg Asn Pro Ala
545   550   555   560

Leu Gln Thr Ser Leu Ser Ser Leu Ser Ser Ser Val Ser Arg Ala Pro
                  565   570   575

Arg Thr Ser Ser Ser Ser Leu Gln Ala Asp Gln Ala Ser Ser Asn Ala
                  580   585   590

Pro Gly Pro Arg Pro Ser Ser Gly Ser His Arg Ser Pro Ala Arg Gln
              595   600   605

Gly Leu Pro Ser Pro Pro Gly Thr Pro His Ser Pro Ser Tyr Ala Gly
              610   615   620

Pro Lys Ala Val Ala Phe Ile His Thr Asp Leu Pro Glu Pro Pro Pro
625   630   635   640

Ser Leu Thr Val Gln Arg Gly Arg Ile Gly Thr Cys Thr Arg Gly Trp
                  645   650   655

Gly Arg Arg Gly Gln Pro Trp Val Pro Pro Gly Leu His Leu Cys His
              660   665   670

Leu Gly Arg Pro Glu Asp Arg Pro Pro Leu Arg Ala Pro Trp Ser Gln
              675   680   685

Ala Ala Gly Ala Pro Pro Arg Gly Ala Met Cys Arg Leu His Leu Ala
              690   695   700

Ala Ser Ser Leu Phe Pro Ser Leu Ser Gly Pro

705　　　　　　　　710　　　　　　　　715

<210> 340

<211> 851

<212> PRT

<213> Homo sapiens

<400> 340

Met Ser Val Ser Phe His Thr His Thr Lys Glu Leu Trp Thr Trp Met
1　　　　　　　　　5　　　　　　　　　10　　　　　　　　　15

Glu Asp Leu Gln Lys Glu Met Leu Glu Asp Val Cys Ala Asp Ser Val
　　　　　　　　20　　　　　　　　　25　　　　　　　　　30

Asp Ala Val Gln Glu Leu Ile Lys Gln Phe Gln Gln Gln Gln Thr Ala
　　　　　　　　35　　　　　　　　　40　　　　　　　　　45

Thr Leu Asp Ala Thr Leu Asn Val Ile Lys Glu Gly Glu Asp Leu Ile
　　　　　　　　50　　　　　　　　　55　　　　　　　　　60

Gln Gln Leu Arg Asp Ser Ala Val Ser Asn Asn Lys Thr Pro His Ser
65　　　　　　　　　70　　　　　　　　　75　　　　　　　　　80

Ser Ser Ile Ser His Ile Glu Ser Val Leu Gln Gln Leu Asp Asp Ala
　　　　　　　　　85　　　　　　　　　90　　　　　　　　　95

Gln Val Gln Met Glu Glu Leu Phe His Glu Arg Lys Ile Lys Leu Asp
　　　　　　　　100　　　　　　　　　105　　　　　　　　　110

Ile Phe Leu Gln Leu Arg Ile Phe Glu Gln Tyr Thr Ile Glu Val Thr
　　　　　　　　115　　　　　　　　　120　　　　　　　　　125

Ala Glu Leu Asp Ala Trp Asn Glu Asp Leu Leu Arg Gln Met Asn Asp
　　　　　　　　130　　　　　　　　　135　　　　　　　　　140

Phe Asn Thr Glu Asp Leu Thr Leu Ala Glu Gln Arg Leu Gln Arg His
145　　　　　　　　　150　　　　　　　　　155　　　　　　　　　160

```
Thr Glu Arg Lys Leu Ala Met Asn Asn Met Thr Phe Glu Val Ile Gln
                165             170             175
Gln Gly Gln Asp Leu His Gln Tyr Ile Thr Glu Val Gln Ala Ser Gly
                180             185             190
Ile Glu Leu Ile Cys Glu Lys Asp Ile Asp Leu Ala Ala Gln Val Gln
                195             200             205
Glu Leu Leu Glu Phe Leu His Glu Lys Gln His Glu Leu Glu Leu Asn
                210             215             220
Ala Glu Gln Thr His Lys Arg Leu Glu Gln Cys Leu Gln Leu Arg His
225             230             235             240
Leu Gln Ala Glu Val Lys Gln Val Leu Gly Trp Ile Arg Asn Gly Glu
                245             250             255
Ser Met Leu Asn Ala Ser Leu Val Asn Ala Ser Ser Leu Ser Glu Ala
                260             265             270
Glu Gln Leu Gln Arg Glu His Glu Gln Phe Gln Leu Ala Ile Glu Ser
                275             280             285
Leu Phe His Ala Thr Ser Leu Gln Lys Thr His Gln Ser Ala Leu Gln
                290             295             300
Val Gln Gln Lys Ala Glu Val Leu Leu Gln Ala Gly His Tyr Asp Ala
305             310             315             320
Asp Ala Ile Arg Glu Cys Ala Glu Lys Val Ala Leu His Trp Gln Gln
                325             330             335
Leu Met Leu Lys Met Glu Asp Arg Leu Lys Leu Val Asn Ala Ser Val
                340             345             350
Ala Phe Tyr Lys Thr Ser Glu Gln Val Cys Ser Val Leu Glu Ser Leu
                355             360             365
Glu Gln Glu Tyr Arg Arg Asp Glu Asp Trp Cys Gly Gly Arg Asp Lys
                370             375             380
Leu Gly Pro Ala Ala Glu Ile Asp His Val Ile Pro Leu Ile Ser Lys
```

```
      385                    390                    395                    400
His Leu Glu Gln Lys Glu Ala Phe Leu Lys Ala Cys Thr Leu Ala Arg
                   405                    410                    415
Arg Asn Ala Glu Val Phe Leu Lys Tyr Ile His Arg Asn Asn Val Ser
                   420                    425                    430
Met Pro Ser Val Ala Ser His Thr Arg Gly Pro Glu Gln Gln Val Lys
                   435                    440                    445
Ala Ile Leu Ser Glu Leu Leu Gln Arg Glu Asn Arg Val Leu His Phe
                   450                    455                    460
Trp Thr Leu Lys Lys Arg Arg Leu Asp Gln Cys Gln Gln Tyr Val Val
465                    470                    475                    480
Phe Glu Arg Ser Ala Lys Gln Ala Leu Asp Trp Ile Gln Glu Thr Gly
                   485                    490                    495
Glu Phe Tyr Leu Ser Thr His Thr Ser Thr Gly Glu Thr Thr Glu Glu
                   500                    505                    510
Thr Gln Glu Leu Leu Lys Glu Tyr Gly Glu Phe Arg Val Pro Ala Lys
                   515                    520                    525
Gln Thr Lys Glu Lys Val Lys Leu Leu Ile Gln Leu Ala Asp Ser Phe
                   530                    535                    540
Val Glu Lys Gly His Ile His Ala Thr Glu Ile Arg Lys Trp Val Thr
545                    550                    555                    560
Thr Val Asp Lys His Tyr Arg Asp Phe Ser Leu Arg Met Gly Lys Tyr
                   565                    570                    575
Arg Tyr Ser Leu Glu Lys Ala Leu Gly Val Asn Thr Glu Asp Asn Lys
                   580                    585                    590
Asp Leu Glu Leu Asp Ile Ile Pro Ala Ser Leu Ser Asp Arg Glu Val
                   595                    600                    605
Lys Leu Arg Asp Ala Asn His Glu Val Asn Glu Glu Lys Arg Lys Ser
                   610                    615                    620
```

Ala Arg Lys Lys Glu Phe Ile Met Ala Glu Leu Leu Gln Thr Glu Lys
625   630   635   640

Ala Tyr Val Arg Asp Leu His Glu Cys Leu Glu Thr Tyr Leu Trp Glu
                  645   650   655

Met Thr Ser Gly Val Glu Glu Ile Pro Pro Gly Ile Leu Asn Lys Glu
              660   665   670

His Ile Ile Phe Gly Asn Ile Gln Glu Ile Tyr Asp Phe His Asn Asn
              675   680   685

Ile Phe Leu Lys Glu Leu Glu Lys Tyr Glu Gln Leu Pro Glu Asp Val
          690   695   700

Gly His Cys Phe Val Thr Trp Ala Asp Lys Phe Gln Met Tyr Val Thr
705   710   715   720

Tyr Cys Lys Asn Lys Pro Asp Ser Asn Gln Leu Ile Leu Glu His Ala
                  725   730   735

Gly Thr Phe Phe Asp Glu Ile Gln Gln Arg His Gly Leu Ala Asn Ser
              740   745   750

Ile Ser Ser Tyr Leu Ile Lys Pro Val Gln Arg Ile Thr Lys Tyr Gln
              755   760   765

Leu Leu Leu Lys Glu Leu Leu Thr Cys Cys Glu Glu Gly Lys Gly Glu
          770   775   780

Leu Lys Asp Gly Leu Glu Val Met Leu Ser Val Pro Lys Lys Ala Asn
785   790   795   800

Asp Ala Met His Val Ser Met Leu Glu Gly Ser Cys Pro Pro Ser Thr
              805   810   815

Gly Glu Ala Ser Ser Leu Pro Arg His Gly Gly Ala Cys Ile Met Gly
              820   825   830

Gly Lys Trp His Glu Val Arg Gln Gly Ala Arg Leu Glu Glu Arg Arg
              835   840   845

Asn Asp Lys

850

<210> 341

<211> 312

<212> PRT

<213> Homo sapiens

<400> 341

```
Met Ile Ala Val Gly Ser Met Asp Tyr Gly Leu Trp Gln Leu Phe Cys
1               5                   10                  15
Thr Leu Glu Leu Pro Leu Ile Pro Ile Leu Ala Val Met Glu Ser His
                20                  25                  30
Ala Ile Gln Val Asn Lys Glu Glu Met Glu Lys Thr Ser Ala Leu Leu
                35                  40                  45
Gly Ala Arg Leu Lys Glu Leu Glu Gln Glu Ala His Phe Val Ala Gly
            50                  55                  60
Glu Arg Phe Leu Ile Thr Ser Asn Asn Gln Leu Arg Glu Ile Leu Phe
65                  70                  75                  80
Gly Lys Leu Lys Leu His Leu Leu Ser Gln Arg Asn Ser Leu Pro Arg
                    85                  90                  95
Thr Gly Leu Gln Lys Tyr Pro Ser Thr Ser Glu Ala Val Asn Ile Gln
                    100                 105                 110
Gly Ile Ser Lys His Pro Ile Gln Ile Thr Thr Pro Lys Asn Phe Lys
                115                 120                 125
Gly Lys Glu Asp Lys Ile Leu Thr Ile Ser Pro Arg Ala Met Phe Val
                130                 135                 140
Ser Ser Lys Gly His Thr Phe Leu Ala Ala Asp Phe Ser Gln Ile Glu
145                 150                 155                 160
```

Leu Arg Ile Leu Thr His Leu Ser Gly Asp Pro Glu Leu Leu Lys Leu
                165   170   175

Phe Gln Glu Ser Glu Arg Asp Asp Val Phe Ser Thr Leu Thr Ser Gln
                180   185   190

Trp Lys Asp Val Pro Val Glu Gln Val Thr His Ala Asp Arg Glu Gln
                195   200   205

Thr Lys Lys Val Val Tyr Ala Val Val Tyr Gly Ala Gly Lys Glu Arg
        210   215   220

Leu Ala Ala Cys Leu Gly Val Pro Ile Gln Glu Ala Ala Gln Phe Leu
225   230   235   240

Glu Ser Phe Leu Gln Lys Tyr Lys Lys Ile Lys Asp Phe Ala Arg Ala
                245   250   255

Ala Ile Ala Gln Cys His Gln Thr Gly Cys Val Val Ser Ile Met Gly
                260   265   270

Arg Arg Arg Pro Leu Pro Arg Ile His Ala His Asp Gln Gln Leu Arg
                275   280   285

Ala Gln Ala Glu Arg Gln Ala Val Asn Phe Val Val Gln Ala Gln Ser
        290   295   300

Gln His Leu Cys Val Glu Val Pro
305   310

<210> 342

<211> 123

<212> PRT

<213> Homo sapiens

<400> 342

Met Pro Gly Pro Pro Gly Ser Leu Glu Met Gly Pro Leu Thr Phe Arg

```
         1              5              10             15
Asp Val Ala Ile Glu Phe Ser Leu Glu Glu Trp Gln Cys Leu Asp Thr
                20             25             30
Ala Gln Arg Asn Leu Tyr Arg Lys Val Met Phe Glu Asn Tyr Arg Asn
            35             40             45
Leu Val Phe Leu Gly Ile Ala Val Ser Lys Pro His Leu Ile Thr Cys
         50             55             60
Leu Glu Gln Gly Lys Glu Pro Trp Asn Arg Lys Arg Gln Glu Met Val
    65             70             75             80
Ala Lys Pro Pro Glu Ser Tyr Cys Val Ala Gln Ala Asp Leu Glu Leu
                85             90             95
Leu Val Ser Ser Tyr Leu Thr Ala Leu Ala Ser Leu Lys Met Trp Asp
            100            105            110
Tyr Arg Asn Asn Pro Leu Cys Gln Ala Thr Met
            115            120
```

<210> 343

<211> 301

<212> PRT

<213> Homo sapiens

<400> 343

```
Met Ala Val Arg Pro Gly Leu Trp Pro Ala Leu Leu Gly Ile Val Leu
    1              5              10             15
Ala Ala Trp Leu Arg Gly Ser Gly Ala Gln Gln Ser Ala Thr Val Ala
                20             25             30
Asn Pro Val Pro Gly Ala Asn Pro Asp Leu Leu Pro His Phe Leu Val
            35             40             45
```

```
Glu Pro Glu Asp Val Tyr Ile Val Lys Asn Lys Pro Val Leu Leu Val
      50                55                60

Cys Lys Ala Val Pro Ala Thr Gln Ile Phe Phe Lys Cys Asn Gly Glu
 65                70                75                80

Trp Val Arg Gln Val Asp His Val Ile Glu Arg Ser Thr Asp Gly Ser
                85                90                95

Asn Gly Leu Pro Thr Met Glu Val Arg Ile Asn Val Ser Arg Gln Gln
               100               105               110

Val Glu Lys Val Phe Gly Leu Glu Glu Tyr Trp Cys Gln Cys Val Ala
               115               120               125

Trp Ser Ser Ser Gly Thr Thr Lys Ser Gln Lys Ala Tyr Ile Arg Ile
     130               135               140

Ala Tyr Leu Arg Lys Asn Phe Glu Gln Glu Pro Leu Ala Lys Glu Val
145               150               155               160

Ser Leu Glu Gln Gly Ile Val Leu Pro Cys Arg Pro Pro Glu Gly Ile
               165               170               175

Pro Pro Ala Glu Val Glu Trp Leu Arg Asn Glu Asp Leu Val Asp Pro
               180               185               190

Ser Leu Asp Pro Asn Val Tyr Ile Thr Arg Glu His Ser Leu Val Val
               195               200               205

Arg Gln Ala Arg Leu Ala Asp Thr Ala Asn Tyr Thr Cys Val Ala Lys
     210               215               220

Asn Ile Val Ala Arg Arg Arg Ser Ala Ser Ala Ala Val Ile Val Tyr
225               230               235               240

Val Asp Gly Ser Trp Ser Pro Trp Ser Lys Trp Ser Ala Cys Gly Leu
               245               250               255

Asp Cys Thr His Trp Arg Ser Arg Glu Cys Ser Asp Pro Ala Pro Arg
               260               265               270

Asn Gly Gly Glu Glu Cys Gln Gly Thr Asp Leu Asp Thr Arg Asn Cys
```

```
              275                280                285
Thr Ser Asp Leu Cys Val His Ser Glu Ser Ser Leu Pro
     290                295                300
```

<210> 344

<211> 101

<212> PRT

<213> Homo sapiens

<400> 344

```
Met Leu Arg Glu Val Cys Val Cys Val Cys Val Cys Val Cys
  1               5                10                15
Pro Leu Cys Thr Glu Ala Ala Val Arg Asp Val Thr Asn Leu Asn Leu
              20                25                30
Pro Glu Ser Trp Arg Phe Thr Phe Cys Lys Gly Arg Gly His Ser Trp
              35                40                45
Thr Val Thr Ile Pro Ile Leu Val Arg Val Ala Gly Thr Glu Gln Ser
              50                55                60
His Gln His Ala Lys Val His Leu Gln Ser Ser Met His Ala Pro Arg
 65                70                75                80
Lys Pro Pro Val Gly Tyr Ala Ser Cys Thr Phe Pro Phe Ser Leu Thr
              85                90                95
Ser Val Ser Cys Leu
              100
```

<210> 345

<211> 116

<212> PRT

<213> Homo sapiens

<400> 345

Met Thr Phe Arg Ser Gly Gly Gly Asp Ala Leu Gly Lys Ala Ala Cys
1   5   10   15
Leu Val Pro Ala Ala Ser Arg Pro Gln Ser Pro Ile Leu Gln Met Thr
                20   25   30
Ser Arg Glu Val Thr Pro Gln Val Gly Asn Arg Ala Gly Phe Gly Ile
            35   40   45
Arg Val Cys Leu Phe Pro Pro Arg Asp Pro Glu Ser Trp Gln Pro Val
        50   55   60
Ser Lys Leu Leu Tyr Val His His Thr Ser Gly Phe Arg Phe Ile Gly
65   70   75   80
Val Phe Leu Lys Leu Arg Leu Val Ser Val Gln Leu Leu Leu Val Arg
                85   90   95
His Leu Ser Tyr Thr Arg His Cys Pro Trp Cys Trp Arg His Ser Asn
                100   105   110
Glu Glu Asp Arg
            115

<210> 346

<211> 166

<212> PRT

<213> Homo sapiens

<400> 346

Met Arg His Thr Ser Lys Arg Lys Pro Gln Tyr Tyr Glu Ala Glu Met

```
   1                5                  10                 15
Val Leu Lys Tyr Tyr Lys His Leu Glu Glu Gly Ser Val Ser Leu Cys
                20                 25                 30
Cys Pro Gly Trp Ser Ala Val Ala Gln Ser Arg Leu Thr Ala Ala Ser
            35                 40                 45
Thr Phe Gly Ala Gln Val Ile Leu Leu Phe Gln Leu Ser Glu Gln Leu
         50                 55                 60
Arg Leu Gln Glu Leu Lys Leu Pro Thr Phe Arg Ala His Ser Pro Leu
65                 70                 75                 80
Leu Lys Ser Arg Arg Phe Phe Val Asp Ile Leu Thr Leu Leu Ser Ser
                85                 90                 95
His Cys Gln Leu Cys Pro Ala Ala Arg His Leu Ala Val Tyr Leu Leu
                100                105                110
Asp His Phe Met Asp Arg Tyr Asn Val Thr Thr Ser Lys Gln Leu Tyr
            115                120                125
Thr Val Ala Val Ser Cys Leu Leu Leu Ala Ser Arg Asn Lys Gly Ser
         130                135                140
Gly Ser Pro Val Pro Thr Arg Ser Ala Gln Gln Cys Arg Gln Thr Trp
145                150                155                160
Ala Arg Gly Ser Pro Trp
            165
```

<210> 347

<211> 165

<212> PRT

<213> Homo sapiens

<400> 347

```
Met Leu Phe Phe Asn Lys Lys Asn Phe Phe Asn His Gly Leu Ser Gly
 1               5                   10                  15
Phe Ser Cys Pro Leu Asp Thr Phe Leu Cys Leu Ser Leu Ser Leu Phe
                20                  25                  30
Pro Ala Leu His Arg Gly Pro Pro Gly Ser Arg Gly Pro Leu Ile Pro
                35                  40                  45
Pro Leu Leu Ser Leu Pro Pro Pro Pro Trp Gly Arg Gly Pro Ile Arg
                50                  55                  60
Arg Gly Leu Gly Pro Arg Ser Ser Pro Tyr Gly Arg Gly Trp Trp Gly
 65                 70                  75                  80
Val Asn Ala Glu Pro Pro Phe Pro Gly Pro Gly His Gly Gly Pro Thr
                85                  90                  95
Arg Gly Ser Phe His Lys Glu Gln Arg Asn Pro Arg Arg Leu Lys Ser
               100                 105                 110
Trp Ser Leu Ile Lys Asn Thr Cys Pro Pro Lys Asp Asp Pro Gln Val
               115                 120                 125
Met Glu Asp Lys Ser Asp Arg Pro Val Cys Arg His Phe Ala Lys Lys
               130                 135                 140
Gly His Cys Arg Tyr Glu Asp Leu Cys Ala Phe Tyr His Pro Gly Val
145                 150                 155                 160
Asn Gly Pro Pro Leu
               165
```

<210> 348

<211> 141

<212> PRT

<213> Homo sapiens

<400> 348

Met Arg Asp Asn Ile Ile Ile Ser Gly Ser Thr Asp Arg Thr Leu Lys
1   5   10   15

Val Trp Asn Ala Glu Thr Gly Glu Cys Ile His Thr Leu Tyr Gly His
                20   25   30

Thr Ser Thr Val Arg Cys Met His Leu His Glu Lys Arg Val Val Ser
                35   40   45

Gly Ser Arg Asp Ala Thr Leu Arg Val Trp Asp Ile Glu Thr Gly Gln
            50   55   60

Cys Leu His Val Leu Met Gly His Val Ala Ala Val Arg Cys Val Gln
65   70   75   80

Tyr Asp Gly Arg Arg Val Val Ser Gly Ala Tyr Asp Phe Met Val Lys
                    85   90   95

Ala Trp Asp Pro Glu Thr Glu Thr Cys Leu His Thr Leu Gln Gly His
                100   105   110

Thr Asn Arg Val Tyr Ser Leu Gln Val Arg Ser Leu Ile Ser Pro Leu
                115   120   125

Asn Ala Leu Leu Met Asn His Lys Val Val Leu Leu Arg
                130   135   140

<210> 349

<211> 326

<212> PRT

<213> Homo sapiens

<400> 349

Met Asp Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu
1   5   10   15

Asn Ala Leu Asp Arg Ala Glu Gln Ala Glu Ala Asp Lys Lys Ala Ala
              20   25   30

Glu Asp Arg Ser Lys Gln Leu Glu Glu Asp Ile Ala Ala Lys Glu Lys
              35   40   45

Leu Leu Arg Val Ser Glu Asp Glu Arg Asp Arg Val Leu Glu Glu Leu
          50   55   60

His Lys Ala Glu Asp Ser Leu Leu Ala Ala Glu Glu Ala Ala Ala Lys
      65   70   75   80

Leu Glu Asp Glu Leu Val Ser Leu Gln Lys Lys Leu Lys Gly Thr Glu
                  85   90   95

Asp Glu Leu Asp Lys Tyr Ser Glu Ala Leu Lys Asp Ala Gln Glu Lys
                  100   105   110

Leu Glu Leu Ala Glu Lys Lys Ala Thr Asp Ala Glu Ala Asp Val Ala
                  115   120   125

Ser Leu Asn Arg Arg Ile Gln Leu Val Glu Glu Glu Leu Asp Arg Ala
      130   135   140

Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys Leu Glu Glu Ala Glu Lys
  145   150   155   160

Ala Ala Asp Glu Ser Glu Arg Gly Met Lys Val Ile Glu Ser Arg Ala
                  165   170   175

Gln Lys Asp Glu Glu Lys Met Glu Ile Gln Glu Ile Gln Leu Lys Glu
                  180   185   190

Ala Lys His Ile Ala Glu Asp Ala Asp Arg Lys Tyr Glu Glu Val Ala
                  195   200   205

Arg Lys Leu Val Ile Ile Glu Ser Asp Leu Glu Arg Ala Glu Glu Arg
          210   215   220

Ala Glu Leu Ser Glu Gly Lys Cys Ala Glu Leu Glu Glu Glu Leu Lys
  225   230   235   240

Thr Val Thr Asn Asn Leu Lys Ser Leu Glu Ala Gln Ala Glu Lys Tyr

```
                245              250              255
Ser Gln Lys Glu Asp Arg Tyr Glu Glu Glu Ile Lys Val Leu Ser Asp
            260              265              270
Lys Leu Lys Glu Ala Glu Thr Arg Ala Glu Phe Ala Glu Arg Ser Val
        275              280              285
Thr Lys Leu Glu Lys Ser Ile Asp Asp Leu Glu Glu Lys Val Ala His
    290              295              300
Ala Lys Glu Glu Asn Leu Ser Met His Gln Met Leu Asp Gln Thr Leu
305              310              315              320
Leu Glu Leu Asn Asn Met
                325
```

<210> 350

<211> 268

<212> PRT

<213> Homo sapiens

<400> 350

```
Met Ala Ala Ala Thr Gly Ala Val Ala Ala Ser Ala Ala Ser Gly Gln
 1               5               10               15
Ala Glu Gly Lys Lys Ile Thr Asp Leu Arg Val Ile Asp Leu Lys Ser
                20              25              30
Glu Leu Lys Arg Arg Asn Leu Asp Ile Thr Gly Val Lys Thr Val Leu
            35              40              45
Ile Ser Arg Leu Lys Gln Ala Ile Glu Glu Glu Gly Gly Asp Pro Asp
        50              55              60
Asn Ile Glu Leu Thr Val Ser Thr Gly Thr Pro Asn Lys Lys Pro Thr
65              70              75              80
```

●

Lys Gly Lys Gly Lys Lys His Glu Ala Asp Glu Leu Ser Gly Asp Ala
                85   90   95

Ser Val Glu Asp Asp Ala Phe Ile Lys Asp Gly Glu Glu Glu Glu Asn
                100   105   110

Glu Lys Gly Ser Leu Ala Glu Ala Asp His Thr Ala His Glu Glu Met
        115   120   125

Glu Ala His Thr Thr Val Lys Glu Ala Glu Asp Asp Asn Ile Ser Val
    130   135   140

Thr Ile Gln Ala Glu Asp Ala Ile Thr Leu Asp Phe Asp Gly Asp Asp
145   150   155   160

●

Leu Leu Glu Thr Gly Lys Asn Val Lys Ile Thr Asp Ser Glu Ala Ser
                165   170   175

Lys Pro Lys Asp Gly Gln Asp Ala Ile Ala Gln Ser Pro Glu Lys Glu
                180   185   190

Ser Lys Asp Tyr Glu Met Asn Ala Asn His Lys Asp Gly Lys Lys Glu
        195   200   205

Asp Cys Val Lys Gly Asp Pro Val Glu Lys Glu Ala Arg Glu Ser Ser
    210   215   220

Lys Lys Ala Glu Ser Gly Asp Lys Glu Lys Asp Thr Leu Lys Lys Gly
225   230   235   240

●

Pro Ser Ser Thr Gly Ala Ser Gly Gln Ala Lys Arg Phe Val Phe Leu
                245   250   255

Cys Gln Phe Phe Thr Ile Leu Asn Ser Ser Ile Gln
                260   265

<210> 351

<211> 105

<212> PRT

<213> Homo sapiens

<400> 351

Met Thr Thr His Leu Tyr Asp Ala Pro Thr Val Lys Phe Leu Thr Pro
1   5   10   15

Cys Tyr His Pro Asn Val Asp Thr Gln Gly Asn Ile Cys Leu Asp Ile
            20   25   30

Leu Lys Glu Lys Trp Ser Ala Pro Tyr Asp Ile Arg Thr Ile Leu Leu
            35   40   45

Ser Ile Gln Cys Leu Leu Gly Gln Leu Asn Ile Asp Ser Pro Leu Asn
        50   ·55   60

Thr His Ala Thr Lys Leu Trp Glu Asn Pro Ile Ala Leu Arg Ser Thr
65   70   75   80

Cys Lys Gly Gln Ala Gln Trp Leu Thr Pro Val Ile Pro Ala Leu Trp
                85   90   95

Glu Ala Glu Val Gly Gly Trp Ile Thr
            100   105

<210> 352

<211> 336

<212> PRT

<213> Homo sapiens

<400> 352

Met Lys Glu Arg Lys Arg His Leu Gly Asp Thr Lys His Phe Cys Pro
1   5   10   15

Val Val Leu Lys Glu Asn Phe Ile Leu Gln Pro Gly Asn Thr Glu Glu
            20   25   30

```
Ala Ala Lys Tyr Arg Glu Lys Ile Tyr Tyr Phe Ser Ser Ala Glu Ala
         35                  40                  45
Lys Glu Lys Phe Leu Glu His Pro Glu Asp Tyr Val Ala His Glu Glu
         50                  55                  60
Pro Leu Lys Ala Pro Pro Leu Arg Ile Cys Leu Val Gly Pro Gln Gly
65                  70                  75                  80
Ser Gly Lys Thr Met Cys Gly Arg Gln Leu Ala Glu Lys Leu Asn Ile
                 85                  90                  95
Phe His Ile Gln Phe Glu Glu Val Leu Gln Glu Lys Leu Leu Leu Lys
             100                 105                 110
Thr Glu Lys Lys Val Gly Pro Glu Phe Glu Glu Asp Ser Glu Asn Glu
             115                 120                 125
Gln Ala Ala Lys Gln Glu Leu Glu Glu Leu Ala Ile Gln Ala Asn Val
         130                 135                 140
Lys Val Glu Glu Glu Asn Thr Lys Lys Gln Leu Pro Glu Val Gln Leu
145                 150                 155                 160
Thr Glu Glu Glu Glu Val Ile Lys Ser Ser Leu Met Glu Asn Glu Pro
                 165                 170                 175
Leu Pro Pro Glu Ile Leu Glu Val Ile Leu Ser Glu Trp Trp Leu Lys
                 180                 185                 190
Glu Pro Ile Arg Ser Thr Gly Phe Ile Leu Asp Gly Phe Pro Arg Tyr
         195                 200                 205
Pro Glu Glu Ala Gln Phe Leu Gly Asp Arg Gly Phe Phe Pro Asp Ala
         210                 215                 220
Ala Val Phe Ile Gln Val Asp Asp Gln Asp Ile Phe Asp Arg Leu Leu
225                 230                 235                 240
Pro Ala Gln Ile Glu Lys Trp Lys Leu Lys Gln Lys Lys Lys Leu Glu
                 245                 250                 255
Arg Lys Lys Leu Ile Lys Asp Met Lys Ala Lys Ile Arg Val Asp Thr
```

●

<pre>
                260   265   270
Ile Ala Lys Arg Arg Ala Glu Leu Ile Leu Glu Arg Asp Lys Lys Arg
                275   280   285
Arg Glu Val Ser Ser Phe Val Phe Phe Phe Lys Thr Gly Ser His Ser
                290   295   300
Val Ala Gln Gly Arg Val Gln Trp His Asn His Ser Ser Leu Gln Pro
305   310   315   320
Arg Thr Pro Gly Leu Lys Gly Ser Ser His Leu Ser Leu Ser Lys Cys
                     325   330   335
</pre>

●

<210> 353

<211> 438

<212> PRT

<213> Homo sapiens

<400> 353

<pre>
Met His Pro Leu Pro Gly Tyr Trp Ser Cys Tyr Cys Leu Leu Leu Leu
 1   5   10   15
Phe Ser Leu Gly Val Gln Gly Ser Leu Gly Ala Pro Ser Ala Ala Pro
                20   25   30
Glu Gln Val His Leu Ser Tyr Pro Gly Glu Pro Gly Ser Met Thr Val
                35   40   45
Thr Trp Thr Thr Trp Val Pro Thr Arg Ser Glu Val Gln Phe Gly Leu
                50   55   60
Gln Pro Ser Gly Pro Leu Pro Leu Arg Ala Gln Gly Thr Phe Val Pro
65   70   75   80
Phe Val Asp Gly Gly Ile Leu Arg Arg Lys Leu Tyr Ile His Arg Val
                85   90   95
</pre>

Thr Leu Arg Lys Leu Leu Pro Gly Val Gln Tyr Val Tyr Arg Cys Gly
　　　　　　　100　　　　　　　　　105　　　　　　　　110

Ser Ala Gln Gly Trp Ser Arg Arg Phe Arg Phe Arg Ala Leu Lys Asn
　　　　　　　115　　　　　　　　　120　　　　　　　　125

Gly Ala His Trp Ser Pro Arg Leu Ala Val Phe Gly Asp Leu Gly Ala
　　　　　　　130　　　　　　　　　135　　　　　　　　140

Asp Asn Pro Lys Ala Val Pro Arg Leu Arg Arg Asp Thr Gln Gln Gly
145　　　　　　　　　150　　　　　　　　　155　　　　　　　　160

Met Tyr Asp Ala Val Leu His Val Gly Asp Phe Ala Tyr Asn Leu Asp
　　　　　　　　　165　　　　　　　　170　　　　　　　　175

Gln Asp Asn Ala Arg Val Gly Asp Arg Phe Met Arg Leu Ile Glu Pro
　　　　　　　　　180　　　　　　　　185　　　　　　　　190

Val Ala Ala Ser Leu Pro Tyr Met Thr Cys Pro Gly Asn His Glu Glu
　　　　　　　195　　　　　　　　　200　　　　　　　　205

Arg Tyr Asn Phe Ser Asn Tyr Lys Ala Arg Phe Ser Met Pro Gly Asp
　　　210　　　　　　　　　215　　　　　　　　220

Asn Glu Gly Leu Trp Tyr Ser Trp Asp Leu Gly Pro Ala His Ile Ile
225　　　　　　　　　230　　　　　　　　　235　　　　　　　　240

Ser Phe Ser Thr Glu Val Tyr Phe Phe Leu His Tyr Gly Arg His Leu
　　　　　　　　　245　　　　　　　　250　　　　　　　　255

Val Gln Arg Gln Phe Arg Trp Leu Glu Ser Asp Leu Gln Lys Ala Asn
　　　　　　　260　　　　　　　　　265　　　　　　　　270

Lys Asn Arg Ala Ala Arg Pro Trp Ile Ile Thr Met Gly His Arg Pro
　　　　　　　275　　　　　　　　　280　　　　　　　　285

Met Tyr Cys Ser Asn Ala Asp Leu Asp Asp Cys Thr Arg His Glu Ser
　　　　　　　290　　　　　　　　　295　　　　　　　　300

Lys Val Arg Lys Gly Leu Gln Gly Lys Leu Tyr Gly Leu Glu Asp Leu
305　　　　　　　　　310　　　　　　　　　315　　　　　　　　320

Phe Tyr Lys Tyr Gly Val Asp Leu Gln Leu Trp Ala His Glu His Ser

```
                    325               330                335
Tyr Glu Arg Leu Trp Pro Ile Tyr Asn Tyr Gln Val Phe Asn Gly Ser
                340               345                350
Arg Glu Met Pro Tyr Thr Asn Pro Arg Gly Pro Val His Ile Ile Thr
                355               360                365
Gly Ser Ala Gly Cys Glu Glu Arg Leu Thr Pro Phe Ala Val Phe Pro
            370               375               380
Arg Pro Trp Ser Ala Val Arg Val Lys Glu Tyr Gly Tyr Thr Arg Leu
385               390               395                400
His Ile Leu Asn Gly Thr His Thr His Ile Gln Gln Val Ser Asp Asp
                405               410                415
Gln Asp Gly Lys Ile Val Asp Asp Val Trp Val Val Arg Pro Leu Phe
                420               425                430
Gly Arg Arg Met Tyr Leu
                435
```

<210> 354

<211> 607

<212> PRT

<213> Homo sapiens

<400> 354

```
Met Ala Glu Glu Gly Ala Ile Leu Lys Val Thr Lys Asp Leu Arg Ala
1               5               10                15
Ala Val Ser Ala Ile Leu Gln Gly Tyr Gly Asp Gly Gln Gly Pro Val
            20               25               30
Thr Asp Thr Ser Ala Glu Leu His Arg Leu Cys Gly Cys Leu Glu Leu
            35               40               45
```

Leu Leu Gln Phe Asp Gln Lys Glu Gln Lys Ser Phe Leu Gly Pro Arg
　　　　　　50　　　　　　　　　55　　　　　　　　　60

Lys Asp Tyr Trp Asp Phe Leu Cys Thr Ala Leu Arg Arg Gln Arg Gly
　　65　　　　　　　　　70　　　　　　　　　75　　　　　　　　　80

Asn Met Glu Pro Ile His Phe Val Arg Ser Gln Asp Lys Leu Lys Thr
　　　　　　　　　85　　　　　　　　　90　　　　　　　　　95

Pro Leu Gly Lys Gly Arg Ala Phe Ile Arg Phe Cys Leu Ala Arg Gly
　　　　　　　　100　　　　　　　　105　　　　　　　　110

Gln Leu Ala Glu Ala Leu Gln Leu Cys Leu Leu Asn Ser Glu Leu Thr
　　　　　　　115　　　　　　　　120　　　　　　　　125

Arg Glu Trp Tyr Gly Pro Arg Ser Pro Leu Leu Cys Pro Glu Arg Gln
　　　　　　130　　　　　　　　135　　　　　　　　140

Glu Asp Ile Leu Asp Ser Leu Tyr Ala Leu Asn Gly Val Ala Phe Glu
145　　　　　　　　150　　　　　　　　155　　　　　　　　160

Leu Asp Leu Gln Gln Pro Asp Leu Asp Gly Ala Trp Pro Met Phe Ser
　　　　　　　　165　　　　　　　　170　　　　　　　　175

Glu Ser Arg Cys Ser Ser Ser Thr Gln Thr Gln Gly Arg Arg Pro Arg
　　　　　　　　180　　　　　　　　185　　　　　　　　190

Lys Asn Lys Asp Ala Pro Lys Lys Val Pro Leu Pro Cys Leu His Ser
　　　　　　　195　　　　　　　　200　　　　　　　　205

Glu Leu Pro Leu Pro His Leu Leu Gly Ile Leu Lys Ile Pro Ala Ala
　　　　　　210　　　　　　　　215　　　　　　　　220

Tyr Gly Gly Pro Glu Asn Val Gln Ile Glu Asp Ser His Thr Ser Gln
225　　　　　　　　230　　　　　　　　235　　　　　　　　240

Ala Ile Cys Leu Gln Asp Ala Pro Ser Gly Gln Gln Leu Ala Gly Leu
　　　　　　　　245　　　　　　　　250　　　　　　　　255

Pro Arg Ser Gln Gln Gln Arg His Leu Pro Phe Phe Leu Glu Lys Lys
　　　　　　　　260　　　　　　　　265　　　　　　　　270

Gly Glu Ser Ser Arg Lys His Arg Tyr Pro Gln Ser Met Trp Glu Pro

```
                275              280              285
Glu Gly Lys Glu Leu Gln Leu Asp Gln Glu Glu Arg Ala Pro Trp Ile
      290              295              300
Glu Ile Phe Leu Gly Asn Ser Thr Pro Ser Thr Gln Gly Gln Gly Lys
305              310              315              320
Gly Ala Met Gly Thr Gln Lys Glu Val Ile Gly Met Glu Ala Glu Val
                325              330              335
Thr Gly Val Leu Leu Val Ala Glu Gly Gln Arg Thr Thr Glu Gly Thr
            340              345              350
His Lys Lys Glu Ala Glu Trp Ser His Val Gln Arg Leu Leu Met Pro
      355              360              365
Ser Pro Arg Gly Ala Val Glu Gly Ala Val Ser Gly Ser Arg Gln Gly
      370              375              380
Ser Gly Gly Ser Ser Ile Leu Gly Glu Pro Trp Val Leu Gln Gly His
385              390              395              400
Ala Thr Lys Glu Asp Ser Thr Val Glu Asn Pro Gln Val Gln Thr Glu
            405              410              415
Val Thr Leu Val Ala Arg Arg Glu Glu Gln Ala Glu Val Ser Leu Gln
            420              425              430
Asp Glu Ile Lys Ser Leu Arg Leu Gly Leu Arg Lys Ala Glu Glu Gln
            435              440              445
Ala Gln Arg Gln Glu Gln Leu Leu Arg Glu Gln Glu Gly Glu Leu Gln
      450              455              460
Ala Leu Arg Glu Gln Leu Ser Arg Cys Gln Glu Glu Arg Ala Glu Leu
465              470              475              480
Gln Ala Gln Leu Glu Gln Lys Gln Gln Glu Ala Glu Arg Arg Asp Ala
            485              490              495
Met Tyr Gln Glu Glu Leu Gly Gly Gln Arg Asp Leu Val Gln Ala Met
      500              505              510
```

Lys Arg Arg Val Leu Glu Leu Ile Gln Glu Lys Asp Arg Leu Trp Gln
　　　　515　　　　　　　　520　　　　　　　　525

Arg Leu Gln His Leu Ser Ser Met Ala Pro Glu Cys Cys Val Ala Cys
　　　530　　　　　　　　535　　　　　　　　540

Ser Lys Ile Phe Gly Arg Phe Ser Arg Arg Tyr Pro Cys Ser Ala Arg
545　　　　　　　　550　　　　　　　　555　　　　　　　　560

Thr Ser Leu Gly Arg Glu Glu Ser Glu Pro Pro Gly Glu Ala Ala Met
　　　　　　565　　　　　　　　570　　　　　　　　575

Trp Arg Trp Arg Leu Trp Arg Gly Arg Ala Ser Gly His Pro Ser Gly
　　　　580　　　　　　　　585　　　　　　　　590

Glu Gly Arg Pro Pro Glu Thr Asn Gln Gly His Ser Thr Gly Arg
　　　　595　　　　　　　　600　　　　　　　　605

<210> 355

<211> 148

<212> PRT

<213> Homo sapiens

<400> 355

Met Ser Cys Asn Leu Ala Ser Leu Cys Ser Lys Val Leu Glu Gln Gly
1　　　　　　　　5　　　　　　　　10　　　　　　　　15

Ala Tyr His Pro Ile Leu Ile Pro Ser Pro Leu Ser Pro Pro Trp Thr
　　　　　　20　　　　　　　　25　　　　　　　　30

His Cys Ala Gln His Leu Arg Pro Cys Thr Cys Lys Gly Ser Ser His
　　　　35　　　　　　　　40　　　　　　　　45

Tyr Gly Asp Gln Gln Pro Arg Ser Gln Val Leu Asn Ser Lys Met Leu
　　　　50　　　　　　　　55　　　　　　　　60

Leu Ser Ala Ser Val Leu Asp Leu Ser Ser Val Asp Ser Asp Ala Phe

```
      65                    70                    75                    80
Glu Ile Leu Leu Ser Leu Ala Ser Ile Ala Ile Arg Thr Pro Arg Val
                      85                    90                    95
Cys His Pro Leu Leu Pro Leu His Phe Ile Leu Leu His Lys Gly Gln
                     100                   105                   110
Pro Ser His Val Glu Val Leu Trp Asp Ala Ala Trp Leu Phe Phe Ile
                     115                   120                   125
Val Asp Leu Met Phe Ser Ser Ile Leu Leu Cys Thr Phe Leu Arg Leu
                     130                   135                   140
Gln Tyr Phe Val
145
```

.

<210> 356

<211> 392

<212> PRT

<213> Homo sapiens

<400> 356

```
Met Gln Pro Leu Thr Lys Asp Ala Gly Met Ser Leu Ser Ser Val Thr
  1               5                    10                   15
Leu Ala Ser Ala Leu Gln Val Arg Gly Glu Ala Leu Ser Glu Glu Glu
                     20                   25                   30
Ile Trp Ser Leu Leu Phe Leu Ala Ala Glu Gln Leu Leu Glu Asp Leu
             35                   40                   45
Arg Asn Asp Ser Ser Asp Tyr Val Val Cys Pro Trp Ser Ala Leu Leu
         50                   55                   60
Ser Ala Ala Gly Ser Leu Ser Phe Gln Gly Arg Val Ser His Ile Glu
  65                   70                   75                   80
```

Ala Ala Pro Phe Lys Ala Pro Glu Leu Leu Gln Gly Gln Ser Glu Asp
　　　　　　　　　85　　　　　　　　90　　　　　　　　95

Glu Gln Pro Asp Ala Ser Gln Met His Val Tyr Ser Leu Gly Met Thr
　　　　　　　100　　　　　　　105　　　　　　　110

Leu Tyr Trp Ser Ala Gly Phe His Val Pro Pro His Gln Pro Leu Gln
　　　　　　　115　　　　　　　120　　　　　　　125

Leu Cys Glu Pro Leu His Ser Ile Leu Leu Thr Met Cys Glu Asp Gln
　　　130　　　　　　　135　　　　　　　140

Pro His Arg Arg Cys Thr Leu Gln Ser Val Leu Glu Ala Cys Arg Val
145　　　　　　　150　　　　　　　155　　　　　　　160

His Glu Lys Glu Val Ser Val Tyr Pro Ala Pro Ala Gly Leu His Ile
　　　　　　　165　　　　　　　170　　　　　　　175

Arg Arg Leu Val Gly Leu Val Leu Gly Thr Ile Ser Glu Val Glu Lys
　　　　　　　180　　　　　　　185　　　　　　　190

Arg Val Val Glu Glu Ser Ser Ser Val Gln Gln Asn Arg Ser Tyr Leu
　　　　　　　195　　　　　　　200　　　　　　　205

Leu Arg Lys Arg Leu Arg Gly Thr Ser Ser Glu Ser Pro Ala Ala Gln
　　　210　　　　　　　215　　　　　　　220

Ala Pro Glu Cys Leu His Pro Cys Arg Val Ser Glu Arg Ser Thr Glu
225　　　　　　　230　　　　　　　235　　　　　　　240

Thr Gln Ser Ser Pro Glu Pro His Trp Ser Thr Leu Thr His Ser His
　　　　　　　245　　　　　　　250　　　　　　　255

Cys Ser Leu Leu Val Asn Arg Ala Leu Pro Gly Ala Asp Pro Gln Asp
　　　　　　　260　　　　　　　265　　　　　　　270

Gln Gln Ala Gly Arg Arg Leu Ser Ser Gly Ser Val His Ser Ala Ala
　　　275　　　　　　　280　　　　　　　285

Asp Ser Ser Trp Pro Thr Thr Pro Ser Gln Arg Gly Phe Leu Gln Arg
　　　290　　　　　　　295　　　　　　　300

Arg Ser Lys Phe Ser Arg Pro Glu Phe Ile Leu Leu Ala Gly Glu Ala

```
305                    310                   315                   320
Pro Met Thr Leu His Leu Pro Gly Ser Val Val Thr Lys Lys Gly Lys
                   325                   330                   335
Ser Tyr Leu Ala Leu Arg Asp Leu Cys Val Val Leu Leu Asn Gly Gln
               340                   345                   350
His Leu Glu Val Lys Cys Asp Val Glu Ser Thr Val Gly Ala Val Phe
           355                   360                   365
Asn Ala Val Thr Ser Phe Ala Asn Leu Glu Glu Leu Thr Tyr Phe Gly
       370                   375                   380
Leu Ala Tyr Met Lys Ser Gly Glu
385                   390
```

<210> 357

<211> 357

<212> PRT

<213> Homo sapiens

<400> 357

```
Met Pro Glu Cys Trp Asp Gly Glu His Asp Ile Glu Thr Pro Tyr Gly
1                   5                     10                    15
Leu Leu His Val Val Ile Arg Gly Ser Pro Lys Gly Asn Arg Pro Ala
                   20                    25                    30
Ile Leu Thr Tyr His Asp Val Gly Leu Asn Arg Lys Cys Ser Pro Ala
               35                    40                    45
Ser Val Ser Pro Pro Leu Pro Pro Ile Ser Gln Ser Asp Lys Leu Cys
           50                    55                    60
Phe Asn Thr Phe Phe Asn Phe Glu Asp Met Gln Glu Ile Thr Lys His
65                    70                    75                    80
```

Phe Val Val Cys His Val Asp Ala Pro Gly Gln Gln Val Gly Ala Ser
                85   90   95

Gln Phe Pro Gln Gly Tyr Gln Phe Pro Ser Met Glu Gln Leu Ala Ala
               100   105   110

Met Leu Pro Ser Val Val Gln His Phe Gly Phe Lys Tyr Val Ile Gly
               115   120   125

Ile Gly Val Gly Ala Gly Ala Tyr Val Leu Ala Lys Phe Ala Leu Ile
           130   135   140

Phe Pro Asp Leu Val Glu Gly Leu Val Leu Val Asn Ile Asp Pro Asn
145   150   155   160

Gly Lys Gly Trp Ile Asp Trp Ala Ala Thr Lys Leu Ser Gly Leu Thr
                   165   170   175

Ser Thr Leu Pro Asp Thr Val Leu Ser His Leu Phe Ser Gln Glu Glu
               180   185   190

Leu Val Asn Asn Thr Glu Leu Val Gln Ser Tyr Arg Gln Gln Ile Gly
               195   200   205

Asn Val Val Asn Gln Ala Asn Leu Gln Leu Phe Trp Asn Met Tyr Asn
           210   215   220

Ser Arg Arg Asp Leu Asp Ile Asn Arg Pro Gly Thr Val Pro Asn Ala
225   230   235   240

Lys Thr Leu Arg Cys Pro Val Met Leu Val Val Gly Asp Asn Ala Pro
                   245   250   255

Ala Glu Asp Gly Val Val Glu Cys Asn Ser Lys Leu Asp Pro Thr Thr
               260   265   270

Thr Thr Phe Leu Lys Met Ala Asp Ser Gly Gly Leu Pro Gln Val Thr
               275   280   285

Gln Pro Gly Lys Leu Thr Glu Ala Phe Lys Tyr Phe Leu Gln Gly Met
           290   295   300

Gly Tyr Met Pro Ser Ala Ser Met Thr Arg Leu Ala Arg Ser Arg Thr

```
      305                     310                   315                   320
      Ala Ser Leu Thr Ser Ala Ser Ser Val Asp Gly Ser Arg Pro Gln Ala
                              325                   330                   335
      Cys Thr His Ser Glu Ser Ser Glu Gly Leu Gly Gln Val Asn His Thr
                      340                   345                   350
      Met Glu Val Ser Cys
                      355
```

<210> 358

<211> 357

<212> PRT

<213> Homo sapiens

<400> 358

```
      Met Ser Pro Gly Pro Thr Asn Phe Phe Val Phe Leu Leu Glu Met Gly
      1                   5                   10                    15
      Phe His His Ala Gly Arg Val Gly Pro Glu Leu Leu Thr Ser Gly Asp
                          20                  25                  30
      Pro Leu Ala Ser Ala Ser Gln Ser Ala Gly Ile Thr Glu Thr Glu Gly
                      35                  40                  45
      Ser Glu Glu Asp Asp Lys Glu Asn Asp Lys Thr Glu Glu Met Pro Asn
                  50                  55                  60
      Asp Ser Val Leu Glu Asn Lys Ser Leu Gln Glu Asn Glu Glu Glu Glu
      65                  70                  75                  80
      Ile Gly Asn Leu Glu Leu Ala Trp Asp Met Pro Asp Leu Ala Lys Ile
                          85                  90                  95
      Ile Phe Lys Arg Gln Glu Thr Lys Glu Ala Gln Leu Tyr Ala Ala Gln
                          100                 105                 110
```

Ala His Leu Lys Leu Gly Glu Val Ser Val Glu Ser Glu Asn Tyr Val
　　　　　　115　　　　　　　　120　　　　　　　　125

Gln Ala Val Glu Glu Phe Gln Ser Cys Leu Asn Leu Gln Glu Gln Tyr
　　　　　130　　　　　　　135　　　　　　　　140

Leu Glu Ala His Asp Arg Leu Leu Ala Glu Thr His Tyr Gln Leu Gly
145　　　　　　　　150　　　　　　　　155　　　　　　　　160

Leu Ala Tyr Gly Tyr Asn Ser Gln Tyr Asp Glu Ala Val Ala Gln Phe
　　　　　　165　　　　　　　　170　　　　　　　　175

Ser Lys Ser Ile Glu Val Ile Glu Asn Arg Met Ala Val Leu Asn Glu
　　　　　　　180　　　　　　　185　　　　　　　190

Gln Val Lys Glu Ala Glu Gly Ser Ser Ala Glu Tyr Lys Lys Glu Ile
　　　　　　　195　　　　　　　200　　　　　　　　205

Glu Glu Leu Lys Glu Leu Leu Pro Glu Ile Arg Glu Lys Ile Glu Asp
　　　210　　　　　　　215　　　　　　　220

Ala Lys Glu Ser Gln Arg Ser Gly Asn Val Ala Glu Leu Ala Leu Lys
225　　　　　　　230　　　　　　235　　　　　　　240

Ala Thr Leu Val Glu Ser Ser Thr Ser Gly Phe Thr Pro Gly Gly Gly
　　　　　　　245　　　　　　　250　　　　　　　255

Gly Ser Ser Val Ser Met Ile Ala Ser Arg Lys Pro Thr Asp Gly Ala
　　　　　　　260　　　　　　　265　　　　　　270

Ser Ser Ser Asn Cys Val Thr Asp Ile Ser His Leu Val Arg Lys Lys
　　　　　　275　　　　　　　280　　　　　　285

Arg Lys Pro Glu Glu Glu Ser Pro Arg Lys Asp Asp Ala Lys Lys Ala
　　　290　　　　　　　295　　　　　　300

Lys Gln Glu Pro Glu Val Asn Gly Gly Ser Gly Asp Ala Val Pro Ser
305　　　　　　　310　　　　　　315　　　　　　　320

Gly Asn Glu Val Ser Glu Asn Met Glu Glu Glu Ala Glu Asn Gln Ala
　　　　　325　　　　　　330　　　　　　335

Glu Ser Arg Ala Ala Val Glu Gly Thr Val Glu Ala Gly Ala Thr Val

```
                340                    345                    350
Glu Ser Thr Ala Cys
                355
```

<210> 359

<211> 217

<212> PRT

<213> Homo sapiens

<400> 359

```
Met Leu Ser Leu Gln Asp Ser Val Phe Phe Glu Ile Ser Ile Lys Ser
1                   5                   10                  15
Leu Leu Lys Ser Trp Ser Ser Ser Ser Ser Ala Pro Val Ser Lys Val
                20                  25                  30
Asn Lys Tyr Cys Ala Ser Ser Asn Phe His Ser Thr Trp Gly Lys Lys
                35                  40                  45
Asn Ile Ile Met Ser Asn Ile Thr Ile Asp Pro Asp Val Lys Pro Gly
            50                  55                  60
Glu Tyr Val Ile Lys Ser Leu Phe Ala Glu Phe Ala Val Gln Ala Glu
65                  70                  75                  80
Lys Lys Ile Glu Val Val Met Ala Glu Pro Leu Glu Lys Leu Leu Ser
                85                  90                  95
Arg Ser Leu Gln Arg Gly Glu Asp Leu Gln Phe Asp Gln Leu Ile Ser
                100                 105                 110
Ser Met Ser Ser Val Ala Glu His Cys Leu Pro Ser Leu Leu Arg Thr
                115                 120                 125
Leu Phe Asp Trp Tyr Arg Arg Gln Asn Gly Thr Glu Asp Glu Ser Tyr
                130                 135                 140
```

Glu Tyr Arg Pro Arg Ser Ser Thr Lys Ser Lys Gly Asp Glu Gln Gln
145   150   155   160

Arg Glu Arg Asp Tyr Leu Leu Glu Arg Arg Asp Leu Ala Val Asp Phe
                165   170   175

Ile Phe Cys Leu Val Leu Val Glu Val Leu Lys Gln Val Ser Ser Phe
                180   185   190

Ile Ser Ala Lys Ser Val Phe Leu Ile Leu Cys Leu Leu Cys Leu Arg
                195   200   205

Val Ser Val Thr Leu Arg Cys Cys Val
210   215

<210> 360

<211> 908

<212> PRT

<213> Homo sapiens

<400> 360

Met Gly Val Asn Asp Leu Trp Gln Ile Leu Glu Pro Val Lys Gln His
1   5   10   15

Ile Pro Leu Arg Asn Leu Gly Gly Lys Thr Ile Ala Val Asp Leu Ser
                20   25   30

Leu Trp Val Cys Glu Ala Gln Thr Val Lys Lys Met Met Gly Ser Val
                35   40   45

Met Lys Pro His Leu Arg Asn Leu Phe Phe Arg Ile Ser Tyr Leu Thr
                50   55   60

Gln Met Asp Val Lys Leu Val Phe Val Met Glu Gly Glu Pro Pro Lys
65   70   75   80

Leu Lys Ala Asp Val Ile Ser Lys Arg Asn Gln Thr Arg Tyr Gly Ser

```
                    85                      90                      95
Ser Gly Lys Ser Trp Ser Gln Lys Thr Gly Arg Ser His Phe Lys Ser
                   100                     105                     110
Val Leu Arg Glu Cys Leu His Met Leu Glu Cys Leu Gly Ile Pro Trp
                   115                     120                     125
Val Gln Ala Ala Gly Glu Ala Glu Ala Met Cys Ala Tyr Leu Asn Ala
               130                     135                     140
Gly Gly His Val Asp Gly Cys Leu Thr Asn Asp Gly Asp Thr Phe Leu
145                     150                     155                     160
Tyr Gly Ala Gln Thr Val Tyr Arg Asn Phe Thr Met Asn Thr Lys Asp
                       165                     170                     175
Pro His Val Asp Cys Tyr Thr Met Ser Ser Ile Lys Ser Lys Leu Gly
                   180                     185                     190
Leu Asp Arg Asp Ala Leu Val Gly Leu Ala Ile Leu Leu Gly Cys Asp
                   195                     200                     205
Tyr Leu Pro Lys Gly Val Pro Gly Val Gly Lys Glu Gln Ala Leu Lys
               210                     215                     220
Leu Ile Gln Ile Leu Lys Gly Gln Ser Leu Leu Gln Arg Phe Asn Arg
225                     230                     235                     240
Trp Asn Glu Thr Ser Cys Asn Ser Ser Pro Gln Leu Leu Val Thr Lys
                       245                     250                     255
Lys Leu Ala His Cys Ser Val Cys Ser His Pro Gly Ser Pro Lys Asp
                   260                     265                     270
His Glu Arg Asn Gly Cys Arg Leu Cys Lys Ser Asp Lys Tyr Cys Glu
                   275                     280                     285
Pro His Asp Tyr Glu Tyr Cys Cys Pro Cys Glu Trp His Arg Thr Glu
               290                     295                     300
His Asp Arg Gln Leu Asn Glu Val Glu Asn Asn Ile Lys Lys Lys Ala
305                     310                     315                     320
```

Cys Cys Cys Glu Gly Phe Pro Phe His Glu Val Ile Gln Glu Phe Leu
　　　　　　　　325　　　　　　　　　330　　　　　　　　335

Leu Asn Lys Asp Lys Leu Val Lys Val Ile Arg Tyr Gln Arg Pro Asp
　　　　　　　　340　　　　　　　　　345　　　　　　　　350

Leu Leu Leu Phe Gln Arg Phe Thr Leu Glu Lys Met Glu Trp Pro Asn
　　　　　　　　355　　　　　　　　　360　　　　　　　　365

His Tyr Ala Cys Glu Lys Leu Leu Val Leu Leu Thr His Tyr Asp Met
　　　　　370　　　　　　　　　375　　　　　　　　380

Ile Glu Arg Lys Leu Gly Ser Arg Asn Ser Asn Gln Leu Gln Pro Ile
385　　　　　　　　　390　　　　　　　　　395　　　　　　　　400

Arg Ile Val Lys Thr Arg Ile Arg Asn Gly Val His Cys Phe Glu Ile
　　　　　　　　405　　　　　　　　　410　　　　　　　　415

Glu Trp Glu Lys Pro Glu His Tyr Ala Met Glu Asp Lys Gln His Gly
　　　　　　　　420　　　　　　　　　425　　　　　　　　430

Glu Phe Ala Leu Leu Thr Ile Glu Glu Glu Ser Leu Phe Glu Ala Ala
　　　　　　　　435　　　　　　　　　440　　　　　　　　445

Tyr Pro Glu Ile Val Ala Val Tyr Gln Lys Gln Lys Leu Glu Ile Lys
　　　　　　　　450　　　　　　　　　455　　　　　　　　460

Gly Lys Lys Gln Lys Arg Ile Lys Pro Lys Glu Asn Asn Leu Pro Glu
465　　　　　　　　　470　　　　　　　　　475　　　　　　　　480

Pro Asp Glu Val Met Ser Phe Gln Ser His Met Thr Leu Lys Pro Thr
　　　　　　　　485　　　　　　　　　490　　　　　　　　495

Cys Glu Ile Phe His Lys Gln Asn Ser Lys Leu Asn Ser Gly Ile Ser
　　　　　　　　500　　　　　　　　　505　　　　　　　　510

Pro Asp Pro Thr Leu Pro Gln Glu Ser Ile Ser Ala Ser Leu Asn Ser
　　　　　　　　515　　　　　　　　　520　　　　　　　　525

Leu Leu Leu Pro Lys Asn Thr Pro Cys Leu Asn Ala Gln Glu Gln Phe
　　　　　530　　　　　　　　　535　　　　　　　　540

Met Ser Ser Leu Arg Pro Leu Ala Ile Gln Gln Ile Lys Ala Val Ser

●

```
    545                550                555                560
Lys Ser Leu Ile Ser Glu Ser Ser Gln Pro Asn Thr Ser Ser His Asn
                565                570                575
Ile Ser Val Ile Ala Asp Leu His Leu Ser Thr Ile Asp Trp Glu Gly
            580                585                590
Thr Ser Phe Ser Asn Ser Pro Ala Ile Gln Arg Asn Thr Phe Ser His
            595                600                605
Asp Leu Lys Ser Glu Val Glu Ser Glu Leu Ser Ala Ile Pro Asp Gly
        610                615                620
```

●

```
Phe Glu Asn Ile Pro Glu Gln Leu Ser Cys Glu Ser Glu Arg Tyr Thr
625                630                635                640
Ala Asn Ile Lys Lys Val Leu Asp Glu Asp Ser Asp Gly Ile Ser Pro
                645                650                655
Glu Glu His Leu Leu Ser Gly Ile Thr Asp Leu Cys Leu Gln Asp Leu
            660                665                670
Pro Leu Lys Glu Arg Ile Phe Ile Lys Leu Ser Tyr Pro Gln Asp Asn
            675                680                685
Leu Gln Pro Asp Val Asn Leu Lys Thr Leu Ser Ile Leu Ser Val Lys
        690                695                700
```

●

```
Glu Ser Cys Ile Ala Asn Ser Gly Ser Asp Cys Thr Ser His Leu Ser
705                710                715                720
Lys Asp Leu Pro Gly Ile Pro Leu Gln Asn Glu Ser Arg Asp Ser Lys
                725                730                735
Ile Leu Lys Gly Asp Gln Leu Leu Gln Glu Asp Tyr Lys Val Asn Thr
                740                745                750
Ser Val Pro Tyr Ser Val Ser Asn Thr Val Val Lys Thr Cys Asn Val
            755                760                765
Arg Pro Pro Asn Thr Ala Leu Asp His Ser Arg Lys Val Asp Met Gln
        770                775                780
```

Thr Thr Arg Lys Ile Leu Met Lys Lys Ser Val Cys Leu Asp Arg His
785   790   795   800

Ser Ser Asp Glu Gln Ser Ala Pro Val Phe Gly Lys Ala Lys Tyr Thr
                805   810   815

Thr Gln Arg Met Lys His Ser Ser Gln Lys His Asn Ser Ser His Phe
                820   825   830

Lys Glu Ser Gly His Asn Lys Leu Ser Ser Pro Lys Ile His Ile Lys
                835   840   845

Glu Thr Glu Gln Cys Val Arg Ser Tyr Glu Thr Ala Glu Asn Glu Glu
        850   855   860

Ser Cys Phe Pro Asp Ser Thr Lys Ser Ser Leu Ser Ser Leu Gln Cys
865   870   875   880

His Lys Lys Glu Asn Asn Ser Gly Thr Cys Leu Asp Ser Pro Leu Pro
                885   890   895

Leu Cys Gln Arg Leu Lys Leu Arg Phe Gln Ser Thr
                900   905

<210> 361

<211> 637

<212> PRT

<213> Homo sapiens

<400> 361

Met Leu Pro Asn Phe Lys Leu Tyr Asn Phe Ile Glu Ile Phe Phe Lys
1   5   10   15

Pro Leu Thr Pro Ser Lys Asn Arg Phe His Phe Val Ser Tyr Phe Glu
                20   25   30

Asn Val Asn Phe Met Leu Cys Trp Leu Gln Glu Asn Asn Phe Cys Leu

```
              35                    40                    45
Leu Leu Cys Phe Leu Ser Gly Leu Leu Ser Arg His Lys Thr Lys Lys
      50                    55                    60
Leu Ser Ser Glu Lys Asp Ile His Glu Ile Ser Leu Ser Lys Glu Ser
 65                    70                    75                    80
Ile Ile Glu Lys Ser Lys Thr Leu Arg Leu Lys Gly Ser Ile Phe Arg
                  85                    90                    95
Asn Glu Trp Gln Asn Lys Ser Glu Phe Glu Gly Gln Gln Gly Leu Lys
                 100                   105                   110
Glu Arg Ser Ile Ser Gln Lys Lys Ile Val Ser Lys Lys Met Ser Thr
          115                   120                   125
Asp Arg Lys Arg Pro Ser Phe Thr Leu Asn Gln Arg Ile His Asn Ser
          130                   135                   140
Glu Lys Ser Cys Asp Ser His Leu Val Gln His Gly Lys Ile Asp Ser
145                   150                   155                   160
Asp Val Lys His Asp Cys Lys Glu Cys Gly Ser Thr Phe Asn Asn Val
                 165                   170                   175
Tyr Gln Leu Thr Leu His Gln Lys Ile His Thr Gly Glu Lys Ser Cys
                 180                   185                   190
Lys Cys Glu Lys Cys Gly Lys Val Phe Ser His Ser Tyr Gln Leu Thr
          195                   200                   205
Leu His Gln Arg Phe His Thr Gly Glu Lys Pro Tyr Glu Cys Gln Glu
          210                   215                   220
Cys Gly Lys Thr Phe Thr Leu Tyr Pro Gln Leu Asn Arg His Gln Lys
225                   230                   235                   240
Ile His Thr Gly Lys Lys Pro Tyr Met Cys Lys Lys Cys Asp Lys Gly
                 245                   250                   255
Phe Phe Ser Arg Leu Glu Leu Thr Gln His Lys Arg Ile His Thr Gly
          260                   265                   270
```

Lys Lys Ser Tyr Glu Cys Lys Glu Cys Gly Lys Val Phe Gln Leu Ile
          275   280   285

Phe Tyr Phe Lys Glu His Glu Arg Ile His Thr Gly Lys Lys Pro Tyr
     290   295   300

Glu Cys Lys Glu Cys Gly Lys Ala Phe Ser Val Cys Gly Gln Leu Thr
305   310   315   320

Arg His Gln Lys Ile His Thr Gly Val Lys Pro Tyr Glu Cys Lys Glu
          325   330   335

Cys Gly Lys Thr Phe Arg Leu Ser Phe Tyr Leu Thr Glu His Arg Arg
          340   345   350

Thr His Ala Gly Lys Lys Pro Tyr Glu Cys Lys Glu Cys Gly Lys Ser
          355   360   365

Phe Asn Val Arg Gly Gln Leu Asn Arg His Lys Thr Ile His Thr Gly
     370   375   380

Ile Lys Pro Phe Ala Cys Lys Val Cys Glu Lys Ala Phe Ser Tyr Ser
385   390   395   400

Gly Asp Leu Arg Val His Ser Arg Ile His Thr Gly Glu Lys Pro Tyr
          405   410   415

Glu Cys Lys Glu Cys Gly Lys Ala Phe Met Leu Arg Ser Val Leu Thr
          420   425   430

Glu His Gln Arg Leu His Thr Gly Val Lys Pro Tyr Glu Cys Lys Glu
          435   440   445

Cys Gly Lys Thr Phe Arg Val Arg Ser Gln Ile Ser Leu His Lys Lys
     450   455   460

Ile His Thr Asp Val Lys Pro Tyr Lys Cys Val Arg Cys Gly Lys Thr
465   470   475   480

Phe Arg Phe Gly Phe Tyr Leu Thr Glu His Gln Arg Ile His Thr Gly
          485   490   495

Glu Lys Pro Tyr Lys Cys Lys Glu Cys Gly Lys Ala Phe Ile Arg Arg

```
                500                   505                   510
Gly Asn Leu Lys Glu His Leu Lys Ile His Ser Gly Leu Lys Pro Tyr
        515                   520                   525
Asp Cys Lys Glu Cys Gly Lys Ser Phe Ser Arg Arg Gly Gln Phe Thr
        530                   535                   540
Glu His Gln Lys Ile His Thr Gly Val Lys Pro Tyr Lys Cys Lys Glu
545                   550                   555                   560
Cys Gly Lys Ala Phe Ser Arg Ser Val Asp Leu Arg Ile His Gln Arg
                565                   570                   575
Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Lys Gln Cys Gly Lys Ala
                580                   585                   590
Phe Arg Leu Asn Ser His Leu Thr Glu His Gln Arg Ile His Thr Gly
        595                   600                   605
Glu Lys Pro Tyr Glu Cys Lys Val Cys Arg Lys Ala Phe Arg Gln Tyr
        610                   615                   620
Ser His Leu Tyr Gln His Gln Lys Thr His Asn Val Ile
625                   630                   635
```

<210> 362

<211> 170

<212> PRT

<213> Homo sapiens

<400> 362

```
Met Arg Ala Ala Val Pro His Gln Gly Ile Lys Phe Phe Lys Thr Leu
1               5                   10                  15
Val Pro Tyr Asp Glu Gly Ala Pro Ala Phe Glu Gly Arg Ala Pro Ala
                20                  25                  30
```

Phe Ser His Ala Ser Leu His Pro Arg Tyr Asp Leu Met Tyr Gln Cys
   35   40   45

Trp Ser Ala Asp Pro Lys Gln Arg Pro Ser Phe Thr Cys Leu Arg Met
   50   55   60

Glu Leu Glu Asn Ile Leu Gly Gln Leu Ser Val Leu Ser Ala Ser Gln
65   70   75   80

Asp Pro Leu Tyr Ile Asn Ile Glu Arg Ala Glu Glu Pro Thr Ala Gly
    85   90   95

Gly Ser Leu Glu Leu Pro Gly Arg Asp Gln Pro Tyr Ser Gly Ala Gly
    100   105   110

Asp Gly Ser Gly Met Gly Ala Val Gly Gly Thr Pro Ser Asp Cys Arg
    115   120   125

Tyr Ile Leu Thr Pro Gly Gly Leu Ala Glu Gln Pro Gly Gln Ala Glu
   130   135   140

His Gln Pro Glu Ser Pro Leu Asn Glu Thr Gln Arg Leu Leu Leu Leu
145   150   155   160

Gln Gln Gly Leu Leu Pro His Ser Ser Cys
    165   170

<210> 363

<211> 492

<212> PRT

<213> Homo sapiens

<400> 363

Met Ala Ser Pro Ser Gly Lys Gly Ala Arg Ala Leu Glu Ala Pro Gly
1   5   10   15

Cys Gly Pro Arg Pro Leu Ala Arg Asp Leu Val Asp Ser Val Asp Asp

```
                    20                   25                   30
Ala Glu Gly Leu Tyr Val Ala Val Glu Arg Cys Pro Leu Cys Asn Thr
              35                   40                   45
Thr Arg Arg Arg Leu Thr Cys Ala Lys Cys Val Gln Ser Gly Asp Phe
              50                   55                   60
Val Tyr Phe Asp Gly Arg Asp Arg Glu Arg Phe Ile Asp Lys Lys Glu
    65                   70                   75                   80
Arg Leu Ser Arg Leu Lys Ser Lys Gln Glu Glu Phe Gln Lys Glu Val
                    85                   90                   95
Leu Lys Ala Met Glu Gly Lys Trp Ile Thr Asp Gln Leu Arg Trp Lys
                   100                  105                  110
Ile Met Ser Cys Lys Met Arg Ile Glu Gln Leu Lys Gln Thr Ile Cys
              115                  120                  125
Lys Gly Asn Glu Glu Met Glu Lys Asn Ser Glu Gly Leu Leu Lys Thr
    130                  135                  140
Lys Glu Lys Asn Gln Lys Leu Tyr Ser Arg Ala Gln Arg His Gln Glu
145                  150                  155                  160
Lys Lys Glu Lys Ile Gln Arg His Asn Arg Lys Leu Gly Asp Leu Val
                   165                  170                  175
Glu Lys Lys Thr Ile Asp Leu Arg Ser His Tyr Glu Arg Leu Ala Asn
              180                  185                  190
Leu Arg Arg Ser His Ile Leu Glu Leu Thr Ser Val Ile Phe Pro Ile
              195                  200                  205
Glu Glu Val Lys Thr Gly Val Arg Asp Pro Ala Asp Val Ser Ser Glu
    210                  215                  220
Ser Asp Ser Ala Met Thr Ser Ser Thr Val Ser Lys Leu Ala Glu Ala
225                  230                  235                  240
Arg Arg Thr Thr Tyr Leu Ser Gly Arg Trp Val Cys Asp Asp His Asn
              245                  250                  255
```

Gly Asp Thr Ser Ile Ser Ile Thr Gly Pro Trp Ile Ser Leu Pro Asn
　　　　　　　260　　　　　　　　　265　　　　　　　　　270

Asn Gly Asp Tyr Ser Ala Tyr Tyr Ser Trp Val Glu Glu Lys Lys Thr
　　　　　　275　　　　　　　　　280　　　　　　　　　285

Thr Gln Gly Pro Asp Met Glu Gln Ser Asn Pro Ala Tyr Thr Ile Ser
　　　　　　290　　　　　　　　　295　　　　　　　　　300

Ala Ala Leu Cys Tyr Ala Thr Gln Leu Val Asn Ile Leu Ser His Ile
305　　　　　　　　310　　　　　　　　315　　　　　　　　320

Leu Asp Val Asn Leu Pro Lys Lys Leu Cys Asn Ser Glu Phe Cys Gly
　　　　　　　325　　　　　　　　330　　　　　　　　335

Glu Asn Leu Ser Lys Gln Lys Phe Thr Arg Ala Val Lys Lys Leu Asn
　　　　　　340　　　　　　　　345　　　　　　　　350

Ala Asn Ile Leu Tyr Leu Cys Phe Ser Gln His Val Asn Leu Asp Gln
　　　　　　355　　　　　　　　360　　　　　　　　365

Leu Gln Pro Leu His Thr Leu Arg Asn Leu Met Tyr Leu Val Ser Pro
　　　　　　370　　　　　　　　375　　　　　　　　380

Ser Ser Glu His Leu Gly Arg Ser Gly Pro Phe Glu Val Arg Ala Asp
385　　　　　　　　390　　　　　　　　395　　　　　　　　400

Leu Glu Glu Ser Met Glu Phe Val Asp Pro Gly Val Ala Gly Glu Ser
　　　　　　　405　　　　　　　　410　　　　　　　　415

Asp Glu Ser Gly Asp Glu Arg Val Ser Asp Glu Glu Thr Asp Leu Gly
　　　　　　420　　　　　　　　425　　　　　　　　430

Thr Asp Trp Glu Asn Leu Pro Ser Pro Arg Phe Cys Asp Ile Pro Ser
　　　　　　435　　　　　　　　440　　　　　　　　445

Gln Ser Val Glu Val Ser Gln Ser Gln Ser Thr Gln Ala Ser Pro Pro
　　　　　　450　　　　　　　　455　　　　　　　　460

Ile Ala Ser Ser Ser Ala Gly Gly Met Ile Ser Ser Ala Ala Ala Ser
465　　　　　　　　470　　　　　　　　475　　　　　　　　480

Val Thr Ser Trp Phe Lys Ala Tyr Thr Gly His Arg

485   490

<210> 364

<211> 415

<212> PRT

<213> Homo sapiens

<400> 364

Met Leu Ser Met Thr Tyr Ser Glu Ser Leu Arg Ser Val Ser Ser Arg
1   5   10   15

Cys His Ser Glu Trp Ala Leu His Pro Val Arg Gln Thr Asp Thr Leu
            20   25   30

Glu Leu Gln Arg Leu Arg Glu Val Arg Ala Ala Ala Gln Ala Arg Asn
        35   40   45

Met Glu Ser Phe Leu Arg Met His Gly Leu Ser Leu Asp Gly Cys Thr
    50   55   60

Ala Gln Arg Thr Gly Met Lys Tyr Arg Asn Leu Gly Lys Ser Gly Leu
65   70   75   80

Arg Val Ser Cys Leu Gly Leu Gly Thr Trp Val Thr Phe Gly Gly Gln
                85   90   95

Ile Thr Asp Glu Met Ala Glu Gln Leu Met Thr Leu Ala Tyr Asp Asn
                100   105   110

Gly Ile Asn Leu Phe Asp Thr Ala Glu Val Tyr Ala Ala Gly Lys Ala
            115   120   125

Glu Val Val Leu Gly Asn Ile Ile Lys Lys Lys Gly Trp Arg Arg Ser
    130   135   140

Ser Leu Val Ile Thr Thr Lys Ile Phe Trp Gly Gly Lys Ala Glu Thr
145   150   155   160

Glu Arg Gly Leu Ser Arg Lys His Ile Ile Glu Gly Leu Lys Ala Ser
　　　　　　　　165　　　　　　　　　170　　　　　　　　　175

Leu Glu Arg Leu Gln Leu Glu Tyr Val Asp Val Val Phe Ala Asn Arg
　　　　　　　　180　　　　　　　　　185　　　　　　　　　190

Pro Asp Pro Asn Thr Pro Met Glu Gly Asp Pro Phe Ser Ser Ser Lys
　　　　　　　　195　　　　　　　　　200　　　　　　　　　205

Ser Arg Thr Phe Ile Ile Glu Glu Thr Val Arg Ala Met Thr His Val
　　　　　　　　210　　　　　　　　　215　　　　　　　　　220

Ile Asn Gln Gly Met Ala Met Tyr Trp Gly Thr Ser Arg Trp Ser Ser
225　　　　　　　　230　　　　　　　　235　　　　　　　　　240

Met Glu Ile Met Glu Ala Tyr Ser Val Ala Arg Gln Phe Asn Leu Thr
　　　　　　　　245　　　　　　　　　250　　　　　　　　　255

Pro Pro Ile Cys Glu Gln Ala Glu Tyr His Met Phe Gln Arg Glu Lys
　　　　　　　　260　　　　　　　　　265　　　　　　　　　270

Val Glu Val Gln Leu Pro Glu Leu Phe His Lys Ile Gly Val Gly Ala
　　　　　　　　275　　　　　　　　　280　　　　　　　　　285

Met Thr Trp Ser Pro Leu Ala Cys Gly Ile Val Ser Gly Lys Tyr Asp
　　　　　　　　290　　　　　　　　　295　　　　　　　　　300

Ser Gly Ile Pro Pro Tyr Ser Arg Ala Ser Leu Lys Gly Tyr Gln Trp
305　　　　　　　　310　　　　　　　　315　　　　　　　　　320

Leu Lys Asp Lys Ile Leu Ser Glu Glu Gly Arg Arg Gln Gln Ala Lys
　　　　　　　　325　　　　　　　　　330　　　　　　　　　335

Leu Lys Glu Leu Gln Ala Ile Ala Glu Arg Leu Gly Cys Thr Leu Pro
　　　　　　　　340　　　　　　　　　345　　　　　　　　　350

Gln Leu Ala Ile Ala Trp Cys Leu Arg Asn Glu Gly Val Ser Ser Val
　　　　　　　　355　　　　　　　　　360　　　　　　　　　365

Leu Leu Gly Ala Ser Asn Ala Asp Gln Leu Met Glu Asn Ile Gly Ala
　　　　　　　　370　　　　　　　　　375　　　　　　　　　380

Ile Gln Val Leu Pro Lys Leu Ser Ser Ser Ile Ile His Glu Ile Asp

```
385                 390                 395                 400
Ser Ile Leu Gly Asn Lys Pro Tyr Ser Lys Lys Asp Tyr Arg Ser
                405                 410                 415
```

<210> 365

<211> 127

<212> PRT

<213> Homo sapiens

<400> 365

```
Met Arg Gln Trp Pro Val Ala Val Pro Cys Ser Arg Gln Gln Cys Cys
1                 5                 10                  15

Arg Ser Ser Leu Gln Pro Thr Ile Cys His Tyr Phe Met Arg Leu Leu
                20                  25                  30

Lys Asp Lys Gly Leu Leu Leu Arg Cys Tyr Thr Gln Asn Ile Asp Thr
                35                  40                  45

Leu Glu Arg Ile Ala Gly Leu Glu Gln Glu Asp Leu Val Glu Ala His
    50                  55                  60

Gly Thr Phe Tyr Thr Ser His Cys Val Ser Ala Ser Cys Arg His Glu
65                  70                  75                  80

Tyr Pro Leu Ser Trp Met Lys Glu Lys Ile Phe Ser Glu Val Thr Pro
                85                  90                  95

Lys Cys Glu Asp Cys Gln Ser Leu Val Lys Pro Gly Glu Pro Leu Ala
                100                 105                 110

Arg Asp Leu Pro Arg Trp Ile Trp Val Gly Val Pro Ser Ser Pro
                115                 120                 125
```

<210> 366

<211> 540

<212> PRT

<213> Homo sapiens

<400> 366

Met Pro Asn Lys Asn Lys Lys Glu Lys Glu Ser Pro Lys Ala Gly Lys
1   5   10   15

Ser Gly Lys Ser Ser Lys Glu Gly Gln Asp Thr Val Glu Ser Glu Gln
                20   25   30

Ile Ser Val Arg Lys Asn Ser Leu Val Ala Val Pro Ser Thr Val Ser
                35   40   45

Ala Lys Ile Lys Val Pro Val Ser Gln Pro Ile Val Lys Lys Asp Lys
            50   55   60

Arg Gln Asn Ser Ser Arg Phe Ser Ala Ser Asn Asn Arg Glu Leu Gln
65   70   75   80

Lys Leu Pro Ser Leu Lys Asp Val Pro Pro Ala Asp Gln Glu Lys Leu
                    85   90   95

Phe Ile Gln Lys Leu Arg Gln Cys Cys Val Leu Phe Asp Phe Val Ser
                100   105   110

Asp Pro Leu Ser Asp Leu Lys Trp Lys Glu Val Lys Arg Ala Ala Leu
            115   120   125

Ser Glu Met Val Glu Tyr Ile Thr His Asn Arg Asn Val Ile Thr Glu
        130   135   140

Pro Ile Tyr Pro Glu Val Val His Met Phe Ala Val Asn Met Phe Arg
145   150   155   160

Thr Leu Pro Pro Ser Ser Asn Pro Thr Gly Ala Glu Phe Asp Pro Glu
                165   170   175

Glu Asp Glu Pro Thr Leu Glu Ala Ala Trp Pro His Leu Gln Leu Val

```
              180              185              190
Tyr Glu Phe Phe Leu Arg Phe Leu Glu Ser Pro Asp Phe Gln Pro Asn
          195              200              205
Ile Ala Lys Lys Tyr Ile Asp Gln Lys Phe Val Leu Gln Leu Leu Glu
      210              215              220
Leu Phe Asp Ser Glu Asp Pro Arg Glu Arg Asp Phe Leu Lys Thr Thr
225              230              235              240
Leu His Arg Ile Tyr Gly Lys Phe Leu Gly Leu Arg Ala Tyr Ile Arg
              245              250              255
Lys Gln Ile Asn Asn Ile Phe Tyr Arg Phe Ile Tyr Glu Thr Glu His
          260              265              270
His Asn Gly Ile Ala Glu Leu Leu Glu Ile Leu Gly Ser Ile Ile Asn
          275              280              285
Gly Phe Ala Leu Pro Leu Lys Glu Glu His Lys Ile Phe Leu Leu Lys
      290              295              300
Val Leu Leu Pro Leu His Lys Val Lys Ser Leu Ser Val Tyr His Pro
305              310              315              320
Gln Leu Ala Tyr Cys Val Val Gln Phe Leu Glu Lys Asp Ser Thr Leu
              325              330              335
Thr Glu Pro Val Val Met Ala Leu Leu Lys Tyr Trp Pro Lys Thr His
          340              345              350
Ser Pro Lys Glu Val Met Phe Leu Asn Glu Leu Glu Glu Ile Leu Asp
          355              360              365
Val Ile Glu Pro Ser Glu Phe Val Lys Ile Met Glu Pro Leu Phe Arg
      370              375              380
Gln Leu Ala Lys Cys Val Ser Ser Pro His Phe Gln Val Ala Glu Arg
385              390              395              400
Ala Leu Tyr Tyr Trp Asn Asn Glu Tyr Ile Met Ser Leu Ile Ser Asp
              405              410              415
```

Asn Ala Ala Lys Ile Leu Pro Ile Met Phe Pro Ser Leu Tyr Arg Asn
      420   425   430

Ser Lys Thr His Trp Asn Lys Thr Ile His Gly Leu Ile Tyr Asn Ala
      435   440   445

Leu Lys Leu Phe Met Glu Met Asn Gln Lys Leu Phe Asp Asp Cys Thr
      450   455   460

Gln Gln Phe Lys Ala Glu Lys Leu Lys Glu Lys Leu Lys Met Lys Glu
465   470   475   480

Arg Glu Glu Ala Trp Val Lys Ile Glu Asn Leu Ala Lys Ala Asn Pro
              485   490   495

Gln Ala Gln Lys Asp Pro Lys Lys Asp Arg Pro Leu Ala Arg Arg Lys
      500   505   510

Ser Glu Leu Pro Gln Asp Pro His Thr Lys Lys Ala Leu Glu Ala His
      515   520   525

Cys Arg Ala Asp Glu Leu Ala Ser Gln Asp Gly Arg
      530   535   540

<210> 367

<211> 361

<212> PRT

<213> Homo sapiens

<400> 367

Met His Cys Ser Cys Leu Ala Glu Gly Ile Pro Ala Asn Pro Gly Asn
1   5   10   15

Trp Ile Ser Gly Leu Ala Phe Pro Asp Trp Ala Tyr Lys Ala Glu Ser
      20   25   30

Ser Pro Gly Ser Arg Gln Ile Gln Leu Trp His Phe Ile Leu Glu Leu

```
            35                    40                    45
Leu Gln Lys Glu Glu Phe Arg His Val Ile Ala Trp Gln Gln Gly Glu
        50                    55                    60
Tyr Gly Glu Phe Val Ile Lys Asp Pro Asp Glu Val Ala Arg Leu Trp
    65                    70                    75                    80
Gly Arg Arg Lys Cys Lys Pro Gln Met Asn Tyr Asp Lys Leu Ser Arg
                    85                    90                    95
Ala Leu Arg Tyr Tyr Tyr Asn Lys Arg Ile Leu His Lys Thr Lys Gly
                100                   105                   110
Lys Arg Phe Thr Tyr Lys Phe Asn Phe Ser Lys Leu Ile Val Val Asn
            115                   120                   125
Tyr Pro Leu Trp Glu Val Arg Ala Pro Pro Ser Pro His Leu Leu Leu
        130                   135                   140
Gly Ala Pro Ala Leu Cys Arg Pro Ala Leu Val Pro Val Gly Val Gln
145                   150                   155                   160
Ser Glu Leu Leu His Ser Met Leu Phe Ala His Gln Ala Met Val Glu
                165                   170                   175
Gln Leu Thr Gly Gln Gln Thr Pro Arg Gly Pro Pro Glu Thr Ser Gly
                180                   185                   190
Asp Lys Lys Gly Ser Ser Ser Ser Val Tyr Arg Leu Gly Ser Ala Pro
            195                   200                   205
Gly Pro Cys Arg Leu Gly Leu Cys Cys His Leu Gly Ser Val Gln Gly
        210                   215                   220
Glu Leu Pro Gly Val Ala Ser Phe Thr Pro Pro Leu Pro Pro Pro Leu
225                   230                   235                   240
Pro Ser Asn Trp Thr Cys Leu Ser Gly Pro Phe Leu Pro Pro Leu Pro
                245                   250                   255
Ser Glu Gln Gln Leu Pro Gly Ala Phe Lys Pro Asp Ile Leu Leu Pro
            260                   265                   270
```

Gly Pro Arg Ser Leu Pro Gly Ala Trp His Phe Pro Gly Leu Pro Leu
        275   280   285

Leu Ala Gly Leu Gly Gln Gly Ala Gly Glu Arg Leu Trp Leu Leu Ser
        290   295   300

Leu Arg Pro Glu Gly Leu Glu Val Lys Pro Ala Pro Met Met Glu Ala
305   310   315   320

Lys Gly Gly Leu Asp Pro Arg Glu Val Phe Cys Pro Glu Thr Arg Arg
            325   330   335

Leu Lys Thr Gly Glu Glu Ser Leu Thr Ser Pro Asn Leu Glu Asn Leu
        340   345   350

Lys Ala Val Trp Pro Leu Asp Pro Pro
        355   360

<210> 368

<211> 169

<212> PRT

<213> Homo sapiens

<400> 368

Met Met Lys Thr Leu Asn Ile Leu Asp Met Glu Gly Met Phe Leu Asn
    1   5   10   15

Thr Ile Lys Ala Ile Tyr Asp Lys Leu Ile Ala Asn Ile Val Leu Ser
            20   25   30

Gly Lys Lys Leu Lys Ala Phe Pro Ile Arg Pro Arg Thr Arg Gln Gly
        35   40   45

Cys Pro Leu Leu Pro Leu Leu Phe Asn Ile Val Pro Glu Val Leu Ala
    50   55   60

Arg Ala Ile Arg Gln Glu Lys Glu Ile Lys Asp Ile Gln Ile Gly Lys

```
        65                    70                    75                    80
Ser Glu Met Lys Leu Ser Leu Phe Ala Asp Asn Met Ile Leu His Ile
                    85                    90                    95
Glu Asn Leu Lys Asp Cys Thr Lys Thr Pro Phe Glu Leu Asp Lys Ser
                100                   105                   110
Ser Lys Val Ala Gly Tyr Lys Ile Asn Leu Gln Lys Ser Val His Phe
                115                   120                   125
Tyr Thr Leu Thr Val Asn Phe Leu Lys Lys Lys Leu Arg Lys Gln Ser
            130                   135                   140
His Leu Gln Tyr His Leu Leu Leu Ser Lys Ile Leu Arg Arg Lys Phe
145                   150                   155                   160
Asn Gln Gly Ser Glu Arg Ser Ile His
                165
```

<210> 369

<211> 182

<212> PRT

<213> Homo sapiens

<400> 369

```
Met Trp Ile Leu Arg Val Leu Leu Gly Arg His Leu Pro Gln Trp Asn
1                   5                     10                    15
Ala Ser Ser Glu Trp Cys Met Ala Gly Pro His Gly Gly Ser Thr Gln
                20                    25                    30
Gly Leu Asn Thr Gly Lys Glu Leu Ala Arg Gly Val Arg Thr Ser Gly
            35                    40                    45
Ile Trp Glu Ser Ala Ala Trp Asp His Lys Glu Ser Lys Ser Ser Ala
    50                    55                    60
```

Thr Cys Trp Ser Leu Arg Pro Glu Gly Arg Pro Asp Phe Arg Asp His
65   70   75   80

Pro Trp Met Ser Leu Asp Trp Glu Leu Tyr Val Asp Gly Ser Asn Phe
                    85   90   95

Val Asn Ser Gln Gly Glu Arg Cys Val Gly Tyr Ala Val Val Thr Leu
                    100   105   110

Asp Ala Val Ile Glu Ala Lys Ser Leu Pro Gln Gly Thr Ser Ala Gln
              115   120   125

Lys Ala Glu Leu Ile Ala Leu Ile Arg Ala Ser Glu Leu Ser Glu Gly
        130   135   140

Lys Thr Val Asn Ile Tyr Thr Asp Ser Gln Tyr Ala Phe Leu Thr Leu
145   150   155   160

Gln Val His Gly Ala Leu Tyr Lys Glu Lys Gly Leu Leu Asn Ser Gly
                    165   170   175

Gly Lys Asp Val Lys Tyr
              180

<210> 370

<211> 957

<212> PRT

<213> Homo sapiens

<400> 370

Met Thr Ser Phe Leu Lys Pro Glu Asn Ala Leu Lys Arg Ala Glu Glu
1   5   10   15

Leu Ile Asn Val Gly Gln Lys Gln Asp Ala Leu Gln Thr Leu His Asp
              20   25   30

Leu Ile Thr Ser Lys Arg Tyr Arg Ala Trp Gln Lys Thr Leu Glu Arg

　　　　　　　35　　　　　　　　　　　40　　　　　　　　　　45
Ile Met Phe Lys Tyr Val Glu Leu Cys Val Asp Met Arg Lys Gly Arg
　　　　50　　　　　　　　　　55　　　　　　　　　60
Phe Ala Lys Asp Gly Leu Ile Gln Tyr Arg Ile Ile Cys Gln Gln Val
　65　　　　　　　　　70　　　　　　　　　75　　　　　　　　　80
Asn Val Ser Ser Leu Glu Glu Val Ile Lys His Phe Met Gln Leu Ser
　　　　　　　85　　　　　　　　　90　　　　　　　　　95
Thr Glu Lys Ala Glu Gln Ala Arg Ser Gln Ala Gln Ala Leu Glu Glu
　　　　　　100　　　　　　　　105　　　　　　　　110
Ala Leu Asp Val Asp Asp Leu Glu Ala Asp Lys Arg Pro Glu Asp Leu
　　　　　115　　　　　　　　120　　　　　　　　125
Met Leu Ser Tyr Val Ser Gly Glu Lys Gly Lys Asp Arg Ser Asp Arg
　　　　130　　　　　　　　135　　　　　　　　140
Glu Thr Val Thr Pro Trp Phe Lys Phe Leu Trp Glu Thr Tyr Arg Thr
145　　　　　　　　150　　　　　　　　155　　　　　　　　160
Val Leu Glu Ile Leu Arg Asn Asn Ser Lys Leu Glu Ala Leu Tyr Ala
　　　　　　　165　　　　　　　　170　　　　　　　　175
Met Thr Ala His Arg Ala Phe Gln Phe Cys Lys Gln Tyr Lys Arg Thr
　　　　　　180　　　　　　　　185　　　　　　　　190
Thr Glu Leu Arg Arg Leu Cys Glu Ile Ile Arg Asn His Leu Ala Asn
　　　　　195　　　　　　　　200　　　　　　　　205
Leu Asn Lys Tyr Arg Asp Gln Arg Asp Arg Pro Asp Leu Ser Ala Pro
　　　210　　　　　　　　215　　　　　　　　220
Glu Ser Leu Gln Leu Tyr Leu Asp Thr Arg Phe Glu Gln Leu Lys Ile
225　　　　　　　　230　　　　　　　　235　　　　　　　　240
Ala Thr Glu Leu Gly Leu Trp Gln Glu Ala Phe Arg Ser Val Glu Asp
　　　　　　245　　　　　　　　250　　　　　　　　255
Ile His Gly Leu Met Cys Leu Val Lys Lys Thr Pro Lys Pro Ser Leu
　　　　260　　　　　　　　265　　　　　　　　270

```
Met Val Val Tyr Tyr Val Lys Leu Thr Glu Ile Phe Trp Ile Ser Ser
        275             280             285
Ser His Leu Tyr His Ala Tyr Ala Trp Phe Lys Leu Phe Leu Leu Gln
        290             295             300
Lys Ser Phe Asn Lys Asn Leu Ser Gln Lys Asp Leu Gln Leu Ile Ala
305             310             315             320
Ser Ser Val Val Leu Ala Ala Leu Ser Val Pro Pro His Asp Arg Thr
        325             330             335
His Gly Ala Ser His Leu Glu Leu Glu His Glu Lys Glu Arg Asn Leu
        340             345             350
Arg Met Ala Asn Leu Ile Gly Phe Asn Leu Glu Thr Lys Pro Glu Ser
        355             360             365
Arg Glu Met Leu Ser Arg Ala Ser Leu Leu Ala Glu Leu Ala Ser Lys
        370             375             380
Gly Val Met Ser Cys Val Thr Gln Glu Val Lys Asp Ile Tyr His Leu
385             390             395             400
Leu Glu His Glu Phe Tyr Pro Ser Asp Leu Ala Leu Lys Ala Leu Pro
                405             410             415
Leu Ile Thr Lys Ile Ser Lys Leu Gly Gly Lys Leu Ser Thr Ala Ser
        420             425             430
Ser Val Pro Glu Val Gln Leu Ala Gln Tyr Val Pro Ala Leu Glu Arg
        435             440             445
Leu Ala Thr Met Arg Leu Leu Gln Gln Val Ser Asn Val Tyr Gln Ser
        450             455             460
Met Lys Ile Glu Thr Leu Ser Gly Met Ile Pro Phe Phe Asp Phe Ala
465             470             475             480
Gln Val Glu Lys Ile Ser Val Asp Ala Val Lys Gln Lys Phe Val Ser
                485             490             495
Met Lys Val Asp His Met Lys Asn Ala Val Ile Phe Ser Lys Lys Ser
```

```
              500                505                510
Leu Glu Ser Asp Gly Leu Arg Asp His Leu Gly Asn Phe Ala Glu Gln
              515                520                525
Leu Asn Lys Ala Arg Gln Met Ile Tyr Pro Pro Asp Gly Arg Pro Ser
              530                535                540
Lys Leu Gly Ala Leu Leu Pro Thr Leu Thr Glu Val Val Ala Lys Glu
545                550                555                560
His Lys Arg Leu Leu Ala Arg Lys Ser Ile Ile Glu Lys Arg Lys Glu
                   565                570                575
Glu Gln Glu Arg Gln Leu Leu Glu Met Glu Arg Glu Glu Glu Ser Lys
                   580                585                590
Arg Leu Arg Leu Gln Lys Ile Thr Glu Glu Ala Glu Gln Arg Arg Leu
              595                600                605
Ala Thr Glu Tyr Glu Gln Arg Lys Asn Gln Arg Ile Leu Arg Glu Ile
              610                615                620
Glu Glu Arg Glu Asn Glu Glu Ala Gln Ala Leu Leu Gln Glu Ala Glu
625                630                635                640
Lys Arg Ile Lys Lys Lys Gly Lys Lys Pro Ile Ile Glu Gly Asp Lys
                   645                650                655
Ile Thr Lys Gln Thr Leu Met Glu Leu Thr Leu Thr Glu Gln Leu Arg
              660                665                670
Glu Arg Gln Glu Met Glu Lys Lys Leu Gln Lys Leu Ala Lys Thr Met
              675                680                685
Asp Tyr Leu Glu Arg Ala Lys Arg Glu Glu Ala Ala Pro Leu Ile Glu
              690                695                700
Ala Ala Tyr Gln Gln Arg Leu Val Glu Glu Arg Leu Leu His Glu Arg
705                710                715                720
Glu Gln Gln Gln Glu Val Glu Leu Ser Lys Gln Arg His Glu Gly Asp
                   725                730                735
```

Leu Lys Glu Lys Glu Arg Leu Val Arg Met Met Gly Asn Lys Glu Val
          740   745   750

Tyr Gln Ala Arg Val Val Ser His Arg Gln Ala Glu Phe Asn Arg Leu
          755   760   765

Arg Arg Glu Arg Glu Glu Arg Ile Ser Arg Ile Leu Gln Ser Arg Arg
          770   775   780

Gln Glu Arg Glu Lys Met Arg Lys Leu Lys Tyr Tyr Leu Lys Leu Glu
785   790   795   800

Glu Glu Arg Gln Gln Lys Leu Arg Glu Ala Glu Glu Ala Arg Lys Arg
          805   810   815

Glu Asp Ala Glu Arg Lys Lys Lys Glu Glu Glu Glu Arg Leu Arg Lys
          820   825   830

Leu Glu Glu Ile Ala Glu Lys Gln Arg Gln Arg Glu Arg Glu Leu Glu
          835   840   845

Glu Lys Glu Lys Gln Arg Arg Glu Ala Leu Leu Gly Arg Ala Ala Ala
          850   855   860

Glu Pro Ala Pro Pro Ala Arg Pro Leu Glu Ser Gly Ser Ala Ala Pro
865   870   875   880

Ala Ala Ala Ala Ala Ala Ala Ala Ala Pro Thr Pro Gly Lys Tyr Val
          885   890   895

Pro Lys Phe Arg Arg Glu Arg Thr Glu Ser Ala Gly Ala Ala Pro Pro
          900   905   910

Pro Glu Thr Asp Arg Trp Asn Ser Ser Ser Arg Pro Asp Gly Asp Arg
          915   920   925

Trp Arg Ser Asp Asp Arg Arg Thr Ala Phe Gly Ser Gly Gly Gly Ser
          930   935   940

Arg Ser Ser Ser Thr Trp Ser Ser Ser Arg Asn Ala Arg
945   950   955

<210> 371

<211> 177

<212> PRT

<213> Homo sapiens

<400> 371

Met	Glu	Glu	Asp	Leu	Pro	Ser	Lys	Trp	Lys	Ala	Lys	Lys	Ala	Gly
1				5					10					15

Leu	Ala	Ile	Leu	Val	Ser	Asp	Lys	Pro	Asp	Phe	Lys	Pro	Thr	Lys	Ile
			20				25				30			

Lys Arg Asp Lys Glu Gly His Tyr Ile Val Val Lys Gly Ser Ile His
　　　　　35　　　　　　　　40　　　　　　　　45

Gln Glu Asp Leu Thr Ile Leu Asn Ile Tyr Ala Pro Asn Thr Gly Ala
　　　50　　　　　　　55　　　　　　　60

Pro Arg Ser Ile Lys Gln Val Leu Arg Asp Leu Arg Arg Asp Leu Asp
65　　　　　　70　　　　　　　75　　　　　　　80

Ser His Thr Ile Ile Met Gly Asp Phe Asn Thr Pro Leu Ser Ile Leu
　　　　　　85　　　　　　　90　　　　　　　95

Asp Arg Ser Thr Arg Gln Lys Val Ile Lys Asp Ile Gln Asp Leu Asn
　　　　　100　　　　　　　105　　　　　　　110

Ser Ala Leu His Gln Ala Asp Leu Ile Asp Ile Tyr Arg Thr Leu His
　　　115　　　　　　　120　　　　　　　125

His Lys Ser Arg Gln Tyr Ala Phe Phe Ser Ala Pro His Cys Thr Tyr
　　130　　　　　　　135　　　　　　　140

Ser Lys Ile Gly His Ile Ile Gly Ser Lys Thr Leu Leu Arg Lys Cys
145　　　　　　　150　　　　　　　155　　　　　　　160

Lys Arg Thr Glu Ile Thr Ala Asn Cys Leu Leu Asp Thr Val Gln Ser
　　　　　165　　　　　　　170　　　　　　　175

Asn

<210> 372

<211> 113

<212> PRT

<213> Homo sapiens

<400> 372

Met Tyr Cys Leu Lys Gln Phe Leu Pro Leu Cys Val Thr Cys Gly Leu
1   5   10   15

Ser Ile Val Pro Val Val Ile Ala Leu Ile Tyr Lys Cys Pro Leu Phe
                20   25   30

Leu Ser Cys Asn Ile Phe Leu Val Thr Cys Val Thr Pro Ser Val Thr
                35   40   45

Val His Leu Cys Ser Leu Tyr Lys His Asn Ser Ser Ser Leu Cys
        50   55   60

Pro Thr Pro Ser Leu Pro Phe Gly Phe Ala Cys Asn Val Phe Ile Cys
65   70   75   80

Val Arg Gln Ser Pro Thr Val Phe Leu Pro Cys Gly Ser Cys Phe Gly
                85   90   95

Ser Leu Gln Met Ser Leu Pro Thr Ile Phe Leu Ala Ser Ser Arg Asp
                100   105   110

His

<210> 373

<211> 202

<212> PRT

<213> Homo sapiens

<400> 373

Met Thr Gly Ser Asn Ser His Ile Thr Ile Leu Ile Leu Asn Ala Asn
1   5   10   15

Gly Leu Asn Ala Pro Ile Lys Arg His Arg Leu Thr Asn Trp Ile Lys
                20   25   30

Ser Gln Asp Pro Ser Val Cys Cys Ile Glu Glu Thr His Leu Met Cys
                35   40   45

Arg Asp Thr His Gly Leu Lys Ile Lys Gly Trp Arg Lys Ile Cys Gln
        50   55   60

Ala Asn Gly Lys Gln Lys Lys Glu Gly Val Ala Ile Leu Val Ser Asp
65   70   75   80

Lys Thr Gly Phe Lys Pro Thr Lys Ile Lys Arg Asp Lys Glu Gly His
                85   90   95

Tyr Ile Met Val Lys Gly Ser Ile Gln Gln Glu Glu Leu Thr Val Leu
                100   105   110

Asn Ile Cys Ala Pro Asn Ile Gly Ala Pro Arg Phe Ile Lys Gln Val
            115   120   125

Leu Ser Asp Leu Gln Ser Asp Leu Asp Ser His Thr Ile Ile Met Gly
        130   135   140

Asp Phe Asn Thr Pro Leu Ser Thr Leu Asp Arg Ser Thr Arg Gln Lys
145   150   155   160

Val Asn Lys Asp Ile Gln Glu Leu Asn Thr Ala Leu His Gln Ala Asp
                165   170   175

Leu Ile Asp Ile Tyr Arg Thr Leu His Pro Thr Ser Thr Glu Tyr Thr
                180   185   190

Phe Phe Ser Ala Pro His Leu Phe Gln Asn
　　　　　　　195　　　　　　　　　　　200

<210> 374

<211> 512

<212> PRT

<213> Homo sapiens

<400> 374

Met Gln Lys Leu Leu Arg Pro Ser Ser Val Pro Phe Leu Ser Ile Ser
1　　　　　　　5　　　　　　　　　10　　　　　　　　　15

Val Thr Val Ala Thr Pro Phe Leu Ser Leu Pro Pro Lys Val Ala Asn
　　　　　　　20　　　　　　　　　25　　　　　　　　　30

Gln Pro Met Ser Ala Ala Ala Ala Gly Ser Ser Leu Lys Arg Gln Leu
　　　　　　　35　　　　　　　　　40　　　　　　　　　45

Ser Tyr Ser Arg Tyr Leu Ala Leu Ser Ser Thr Asn Thr Cys Ser Val
　　　　　　　50　　　　　　　　　55　　　　　　　　　60

Cys Arg Cys Leu Ser Leu Thr His Thr His Ser His Pro Lys Asn Asn
65　　　　　　　70　　　　　　　　　75　　　　　　　　　80

Lys Thr Leu Leu Leu Leu Asn His Ser Arg Asn Arg Ser Leu His Ser
　　　　　　　85　　　　　　　　　90　　　　　　　　　95

Ala Ser Glu Gly Ser Phe Ile Thr Gln Pro Asp Pro Val Glu Tyr Gly
　　　　　　　100　　　　　　　　　105　　　　　　　　　110

Ser Leu Val Asp Ser Lys Glu Lys Pro Phe Asn Ser Arg Leu Asn Arg
　　　　　　　115　　　　　　　　　120　　　　　　　　　125

Arg Gln Lys Gly Ser Thr Ser Ser Ser Pro Ala Pro Ser Asn Pro Asp
　　　　　　　130　　　　　　　　　135　　　　　　　　　140

Leu Leu Ala Ile Pro Gly Val Gly Pro Arg Asn Phe Arg Lys Leu Val

```
        145              150              155              160
Gln Lys Gly Ile Ala Gly Val Ala Gln Leu Lys Gln Leu Tyr Lys Asp
                     165              170              175
Lys Ser Val Asp Glu Glu Glu Leu Glu Asp Asn Ser Ser Ser Ser Val
                         180              185              190
Gln Lys Lys Arg Leu Thr Phe Cys Val Glu Gly Asn Ile Ser Val Gly
                     195              200              205
Lys Thr Thr Phe Leu Gln Arg Ile Ala Asn Glu Thr Ile Glu Leu Arg
             210              215              220
Asp Leu Val Glu Val Val Pro Glu Pro Ile Ser Lys Trp Gln Asp Val
225              230              235              240
Gly Pro Asp His Phe Asn Ile Leu Asp Ala Phe Tyr Ala Glu Pro Gln
                         245              250              255
Arg Tyr Ala Tyr Thr Phe Gln Asn Tyr Val Phe Val Thr Arg Val Met
                     260              265              270
Gln Glu Arg Glu Ser Ser Ala Gly Ile Lys Pro Leu Arg Leu Met Glu
                     275              280              285
Arg Ser Val Phe Ser Asp Arg Met Val Phe Val Arg Ala Val His Glu
             290              295              300
Ala Asn Trp Met Asn Gly Met Glu Ile Ser Ile Tyr Asp Ser Trp Phe
305              310              315              320
Asp Pro Val Val Ser Ser Leu Pro Gly Leu Ile Pro Asp Gly Phe Ile
                         325              330              335
Tyr Leu Arg Ala Ser Pro Asp Thr Cys His Lys Arg Met Met Leu Arg
                     340              345              350
Lys Arg Thr Glu Glu Gly Gly Val Ser Leu Asp Tyr Leu Cys Asp Leu
                     355              360              365
His Glu Lys His Glu Ser Trp Leu Phe Pro Ser Gln Ser Gly Asn His
                     370              375              380
```

Gly Val Leu Ser Val Asn Gln Leu Pro His His Ile Asp Asn Ser Leu
385　　　　　　　　　390　　　　　　　　395　　　　　　　　400

His Pro Asp Ile Arg Asp Arg Val Phe Tyr Leu Glu Gly Gly His Met
　　　　　　　　　405　　　　　　　　410　　　　　　　　415

His Ser Ser Ile Gln Lys Val Pro Ala Leu Val Leu Asp Cys Glu Pro
　　　　　　　　　420　　　　　　　　425　　　　　　　　430

Asn Ile Asp Phe Ser Lys Asp Ile Glu Ala Lys Arg Gln Tyr Ala Arg
　　　　　　　　　435　　　　　　　　440　　　　　　　　445

Gln Val Ala Glu Phe Phe Glu Phe Val Lys Lys Arg Asn Glu Val Ser
　　　　　　　　　450　　　　　　　　455　　　　　　　　460

Ser Lys Glu Gly Ser Ser Gln Ala Gln Pro Gln Val Leu Leu Pro His
465　　　　　　　　　470　　　　　　　　475　　　　　　　　480

Glu Gly Gly Leu Trp Leu Pro Asp Gly Lys Pro Phe Pro Arg Glu Ala
　　　　　　　　　485　　　　　　　　490　　　　　　　　495

Leu Lys Ser Leu Asp Phe Arg Gln Ala Ala Thr Ser Phe Met Ser Gly
　　　　　　　　　500　　　　　　　　505　　　　　　　　510

<210> 375

<211> 277

<212> PRT

<213> Homo sapiens

<400> 375

Met Phe Val Cys Val Thr Ser Ile Thr Val Ile Ile Val Ser Lys Asp
1　　　　　　　　　5　　　　　　　　10　　　　　　　　15

Arg Glu Phe Cys Leu His Phe Val Met Asp Gly Ser Phe Leu Cys Ser
　　　　　　　　　20　　　　　　　　25　　　　　　　　30

Gln Thr Gly Lys Lys Leu Met Ala Lys Cys Arg Met Leu Ile Gln Glu

●

```
            35                40                45
Asn Gln Glu Leu Gly Arg Gln Leu Ser Gln Gly Arg Ile Ala Gln Leu
        50                55                60
Glu Ala Glu Leu Ala Leu Gln Lys Lys Tyr Ser Glu Glu Leu Lys Ser
    65                70                75                80
Ser Gln Asp Glu Leu Asn Asp Phe Ile Ile Gln Leu Asp Glu Glu Val
                85                90                95
Glu Gly Met Gln Ser Thr Ile Leu Val Leu Gln Gln Gln Leu Lys Glu
                100               105               110
Thr Arg Gln Gln Leu Ala Gln Tyr Gln Gln Gln Gln Ser Gln Ala Ser
            115               120               125
Ala Pro Ser Thr Ser Arg Thr Thr Ala Ser Glu Pro Val Glu Gln Ser
            130               135               140
Glu Ala Thr Ser Lys Asp Cys Ser Arg Leu Thr Asn Gly Pro Ser Asn
145               150               155               160
Gly Ser Ser Ser Arg Gln Arg Thr Ser Gly Ser Gly Phe His Arg Glu
                165               170               175
Gly Asn Thr Thr Glu Asp Asp Phe Pro Ser Ser Pro Gly Asn Gly Asn
            180               185               190
Lys Ser Ser Asn Ser Ser Glu Glu Arg Thr Gly Arg Gly Gly Ser Gly
            195               200               205
Tyr Val Asn Gln Leu Ser Ala Gly Tyr Glu Ser Val Asp Ser Pro Thr
        210               215               220
Gly Ser Glu Asn Ser Leu Thr His Gln Ser Asn Asp Thr Asp Ser Ser
225               230               235               240
His Asp Pro Gln Glu Glu Lys Ala Val Ser Gly Lys Gly Asn Arg Thr
                245               250               255
Val Gly Ser Arg His Val Gln Asn Gly Leu Asp Ser Ser Val Asn Val
            260               265               270
```

Gln Gly Ser Val Leu

　　　　275

<210> 376

<211> 528

<212> PRT

<213> Homo sapiens

<400> 376

Met Ala Val Gly Gln Leu Val Pro Ser Asn Leu Phe Leu Asn His Ser
1　　　　　　　　　5　　　　　　　　　10　　　　　　　　　15

Ala Ala Thr Thr Leu Ile Pro Thr Ser Thr Pro Pro Arg His Arg His
　　　　　　　　20　　　　　　　　　25　　　　　　　　　30

Leu Leu Cys Ile Ser Ser Ala Asn His Thr Thr Ala Thr Asp Asn Asp
　　　　　　　35　　　　　　　　　40　　　　　　　　　45

Ser Pro Phe Pro Ser Phe Gly Arg Val Lys Thr Leu Leu Val His Arg
　　　　　50　　　　　　　　　55　　　　　　　　　60

Arg Arg Lys Asp Gln Ser His Arg Arg Ala Val Gln Leu Glu Asp Asp
65　　　　　　　　　70　　　　　　　　　75　　　　　　　　　80

Asn Asp Asp Asp Ile Ala Pro Arg Pro Arg Arg Ser Gln Ser Arg Ser
　　　　　　　　85　　　　　　　　　90　　　　　　　　　95

Arg Gly Gly Glu Arg Trp Asp Met Ile Pro Asn Tyr Thr Pro Gln Ser
　　　　　　　100　　　　　　　　　105　　　　　　　　　110

Lys Ser Ala Thr Asp Thr Lys Phe Phe Ser Leu Lys Ser Phe Lys Glu
　　　　　　　115　　　　　　　　　120　　　　　　　　　125

Ile Gly Cys Ser Glu Tyr Met Ile Glu Ser Leu Gln Lys Leu Leu Leu
　　　　　130　　　　　　　　　135　　　　　　　　　140

Ser Arg Pro Ser His Val Gln Ala Met Ala Phe Ala Pro Val Ile Ser

```
            145                150                155                160
Gly Lys Thr Cys Val Ile Ala Asp Gln Ser Gly Ser Gly Lys Thr Leu
                 165                170                175
Ala Tyr Leu Ala Pro Ile Ile Gln Leu Leu Arg Leu Glu Glu Leu Glu
                 180                185                190
Gly Arg Ser Ser Lys Ser Ser Ser Gln Ala Pro Arg Val Leu Val Leu
                 195                200                205
Ala Pro Thr Ala Glu Leu Ala Ser Gln Val Leu Asp Asn Cys Arg Ser
            210                215                220
Leu Ser Lys Ser Gly Val Pro Phe Lys Ser Met Val Val Thr Gly Gly
225                230                235                240
Phe Arg Gln Lys Thr Gln Leu Glu Asn Leu Gln Gln Gly Val Asp Val
                 245                250                255
Leu Ile Ala Thr Pro Gly Arg Phe Leu Phe Leu Ile His Glu Gly Phe
                 260                265                270
Leu Gln Leu Thr Asn Leu Arg Cys Ala Ile Leu Asp Glu Val Asp Ile
                 275                280                285
Leu Phe Gly Asp Glu Asp Phe Glu Val Ala Leu Gln Ser Leu Ile Asn
            290                295                300
Ser Ser Pro Val Asp Thr Gln Tyr Leu Phe Val Thr Ala Thr Leu Pro
305                310                315                320
Lys Asn Val Tyr Thr Lys Leu Val Glu Val Phe Pro Asp Cys Glu Met
                 325                330                335
Ile Met Gly Pro Gly Met His Arg Ile Ser Ser Arg Leu Gln Glu Ile
                 340                345                350
Ile Val Asp Cys Ser Gly Glu Asp Gly Gln Glu Lys Thr Pro Asp Thr
                 355                360                365
Ala Phe Leu Asn Lys Lys Thr Ala Leu Leu Gln Leu Val Glu Glu Asn
            370                375                380
```

Pro Val Pro Arg Thr Ile Val Phe Cys Asn Lys Ile Glu Thr Cys Arg
385   390   395   400

Lys Val Glu Asn Leu Leu Lys Arg Phe Asp Arg Lys Gly Asn His Val
                405   410   415

Gln Val Leu Pro Phe His Ala Ala Met Thr Gln Glu Ser Arg Leu Ala
                420   425   430

Ser Met Glu Glu Phe Thr Arg Ser Pro Ser Lys Gly Val Ser Gln Phe
                435   440   445

Met Val Cys Thr Asp Arg Ala Ser Arg Gly Ile Asp Phe Thr Arg Val
                450   455   460

Asp His Val Ile Leu Phe Asp Phe Pro Arg Asp Pro Ser Glu Tyr Val
465   470   475   480

Arg Arg Val Gly Arg Thr Ala Arg Gly Ala Lys Gly Val Gly Lys Ala
                485   490   495

Phe Ile Phe Val Val Gly Lys Gln Val Ser Leu Ala Arg Lys Ile Met
                500   505   510

Glu Arg Asn Gln Lys Gly His Pro Leu His Asp Val Pro Ser Ala Tyr
                515   520   525

<210> 377

<211> 238

<212> PRT

<213> Homo sapiens

<400> 377

Met Cys Gly Leu Ser Phe Met Leu Phe Arg Ala Cys Leu Lys Met Asp
1   5   10   15

Leu Gly Val Phe Ile Cys Val Phe Ile Ser Phe Ser Pro Leu Phe Lys

```
                20                    25                    30
Ser Thr Ala Asp Cys Pro Asp Ala Val Pro Ser Ser Ala Glu Thr Gly
            35                    40                    45
Gly Thr Asn Tyr Leu Ala Pro Gly Gly Leu Ser Asp Ser Gln Leu Leu
        50                    55                    60
Leu Glu Pro Gly Asp Arg Ser His Trp Cys Val Val Ala Tyr Trp Glu
    65                    70                    75                    80
Glu Lys Thr Arg Val Gly Arg Leu Tyr Cys Val Gln Glu Pro Ser Leu
                85                    90                    95
Asp Ile Phe Tyr Asp Leu Pro Gln Gly Asn Gly Phe Cys Leu Gly Gln
                100                   105                   110
Leu Asn Ser Asp Asn Lys Ser Gln Leu Val Gln Lys Val Arg Ser Lys
            115                   120                   125
Ile Gly Cys Gly Ile Gln Leu Thr Arg Glu Val Asp Gly Val Trp Val
        130                   135                   140
Tyr Asn Arg Ser Ser Tyr Pro Ile Phe Ile Lys Ser Ala Thr Leu Asp
    145                   150                   155                   160
Asn Pro Asp Ser Arg Thr Leu Leu Val His Lys Val Phe Pro Gly Phe
                165                   170                   175
Ser Ile Lys Ala Phe Asp Tyr Glu Lys Ala Tyr Ser Leu Gln Arg Pro
            180                   185                   190
Asn Asp His Glu Phe Met Gln Gln Pro Trp Thr Gly Phe Thr Val Gln
            195                   200                   205
Ile Ser Phe Val Lys Gly Trp Gly Gln Cys Tyr Thr Arg Gln Phe Ile
        210                   215                   220
Ser Ser Cys Pro Cys Trp Leu Glu Val Ile Phe Asn Ser Arg
    225                   230                   235
```

<210> 378

<211> 307

<212> PRT

<213> Homo sapiens

<400> 378

Met Gln Ala Leu Ser Thr Val Pro Leu Asp Trp Val Thr Val Pro Lys
1   5   10   15

Leu Gln Glu Cys Gly Ala Arg Pro Ala Met Glu Lys Pro Thr Arg Val
                20   25   30

Val Gly Gly Phe Gly Ala Ala Ser Gly Glu Val Pro Trp Gln Val Ser
                    35   40   45

Leu Lys Glu Gly Ser Arg His Phe Cys Gly Ala Thr Val Val Gly Asp
            50   55   60

Arg Trp Leu Leu Ser Ala Ala His Cys Phe Asn His Thr Lys Val Glu
65   70   75   80

Gln Val Arg Ala His Leu Gly Thr Ala Ser Leu Leu Gly Leu Gly Gly
                    85   90   95

Ser Pro Val Lys Ile Gly Leu Arg Arg Val Val Leu His Pro Leu Tyr
                100   105   110

Asn Pro Gly Ile Leu Asp Phe Asp Leu Ala Val Leu Glu Leu Ala Ser
                115   120   125

Pro Leu Ala Phe Asn Lys Tyr Ile Gln Pro Val Cys Leu Pro Leu Ala
            130   135   140

Ile Gln Lys Phe Pro Val Gly Arg Lys Cys Met Ile Ser Gly Trp Gly
145   150   155   160

Asn Thr Gln Glu Gly Asn Ala Thr Lys Pro Glu Leu Leu Gln Lys Ala
                165   170   175

Ser Val Gly Ile Ile Asp Gln Lys Pro Cys Ser Val Leu Tyr Asn Phe

　　　　　　　　　180　　　　　　　　　185　　　　　　　　　190

Ser Leu Thr Asp Arg Met Ile Cys Ala Gly Phe Leu Glu Gly Lys Val

　　　　　　　　　195　　　　　　　　　200　　　　　　　　　205

Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu Ala Cys Glu Glu Ala

　　　　　　　　　210　　　　　　　　　215　　　　　　　　　220

Pro Gly Val Phe Tyr Leu Ala Gly Ile Val Ser Trp Gly Ile Gly Cys

225　　　　　　　　　230　　　　　　　　　235　　　　　　　　　240

Ala Gln Val Lys Lys Pro Gly Val Tyr Thr Arg Ile Thr Arg Leu Lys

　　　　　　　　　245　　　　　　　　　250　　　　　　　　　255

Gly Trp Ile Leu Glu Ile Met Ser Ser Gln Pro Leu Pro Met Ser Pro

　　　　　　　　　260　　　　　　　　　265　　　　　　　　　270

Pro Ser Thr Thr Arg Met Leu Ala Thr Thr Ser Pro Arg Thr Thr Ala

　　　　　　　　　275　　　　　　　　　280　　　　　　　　　285

Gly Leu Thr Val Pro Gly Ala Thr Pro Ser Arg Pro Thr Pro Gly Leu

　　　　　　　　　290　　　　　　　　　295　　　　　　　　　300

Pro Ala Gly

305

<210> 379

<211> 583

<212> PRT

<213> Homo sapiens

<400> 379

Met Ser Val Ile Val Lys Thr Gln Glu Gly Asp Ile Leu Leu Phe Cys

1　　　　　　　　　5　　　　　　　　　10　　　　　　　　　15

Lys Gly Ala Asp Ser Ala Val Phe Pro Arg Val Gln Asn His Glu Ile

　　　　　　　　　20　　　　　　　　　25　　　　　　　　　30

```
Glu Leu Thr Lys Val His Val Glu Arg Asn Ala Met Asp Gly Tyr Arg
         35              40                45
Thr Leu Cys Val Ala Phe Lys Glu Ile Ala Pro Asp Asp Tyr Glu Arg
        50              55                60
Ile Asn Arg Gln Leu Ile Glu Ala Lys Met Ala Leu Gln Asp Arg Glu
65              70              75              80
Glu Lys Met Glu Lys Val Phe Asp Asp Ile Glu Thr Asn Met Asn Leu
             85              90              95
Ile Gly Ala Thr Ala Val Glu Asp Lys Leu Gln Asp Gln Ala Ala Glu
            100             105             110
Thr Ile Glu Ala Leu His Ala Ala Gly Leu Lys Val Trp Val Leu Thr
        115             120             125
Gly Asp Lys Met Glu Thr Ala Lys Ser Thr Cys Tyr Ala Cys Arg Leu
        130             135             140
Phe Gln Thr Asn Thr Glu Leu Leu Glu Leu Thr Thr Lys Thr Ile Glu
145             150             155             160
Glu Ser Glu Arg Lys Glu Asp Arg Leu His Glu Leu Leu Ile Glu Tyr
             165             170             175
Arg Lys Lys Leu Leu His Glu Phe Pro Lys Ser Thr Arg Ser Phe Lys
             180             185             190
Lys Ala Trp Thr Glu His Gln Glu Tyr Gly Leu Ile Ile Asp Gly Ser
        195             200             205
Thr Leu Ser Leu Ile Leu Asn Ser Ser Gln Asp Ser Ser Ser Asn Asn
        210             215             220
Tyr Lys Ser Ile Phe Leu Gln Ile Cys Met Lys Cys Thr Ala Val Leu
225             230             235             240
Cys Cys Arg Met Ala Pro Leu Gln Lys Ala Gln Ile Val Arg Met Val
             245             250             255
Lys Asn Leu Lys Gly Ser Pro Ile Thr Leu Ser Ile Gly Asp Gly Ala
```

```
              260              265              270
Asn Asp Val Ser Met Ile Leu Glu Ser His Val Gly Ile Gly Ile Lys
         275              280              285
Gly Lys Glu Gly Arg Gln Ala Ala Arg Asn Ser Asp Tyr Ser Val Pro
         290              295              300
Lys Phe Lys His Leu Lys Lys Leu Leu Leu Ala His Gly His Leu Tyr
305              310              315              320
Tyr Val Arg Ile Ala His Leu Val Gln Tyr Phe Phe Tyr Lys Asn Leu
              325              330              335
Cys Phe Ile Leu Pro Gln Phe Leu Tyr Gln Phe Phe Cys Gly Phe Ser
              340              345              350
Gln Gln Pro Leu Tyr Asp Ala Ala Tyr Leu Thr Met Tyr Asn Ile Cys
         355              360              365
Phe Thr Ser Leu Pro Ile Leu Ala Tyr Ser Leu Leu Glu Gln His Ile
         370              375              380
Asn Ile Asp Thr Leu Thr Ser Asp Pro Arg Leu Tyr Met Lys Ile Ser
385              390              395              400
Gly Asn Ala Met Leu Gln Leu Gly Pro Phe Leu Tyr Trp Thr Phe Leu
              405              410              415
Ala Ala Phe Glu Gly Thr Val Phe Phe Phe Gly Thr Tyr Phe Leu Phe
              420              425              430
Gln Thr Ala Ser Leu Glu Glu Asn Gly Lys Val Tyr Gly Asn Trp Thr
         435              440              445
Phe Gly Thr Ile Val Phe Thr Val Leu Val Phe Thr Val Thr Leu Lys
         450              455              460
Leu Ala Leu Asp Thr Arg Phe Trp Thr Trp Ile Asn His Phe Val Ile
465              470              475              480
Trp Gly Ser Leu Ala Phe Tyr Val Phe Phe Ser Phe Phe Trp Gly Gly
              485              490              495
```

Ile Ile Trp Pro Phe Leu Lys Gln Gln Arg Met Tyr Phe Val Phe Ala
            500   505   510

Gln Met Leu Ser Ser Val Ser Thr Trp Leu Ala Ile Ile Leu Leu Ile
            515   520   525

Phe Ile Ser Leu Phe Pro Glu Ile Leu Leu Ile Val Leu Lys Asn Val
            530   535   540

Arg Arg Arg Ser Ala Arg Arg Asn Leu Ser Cys Arg Arg Ala Ser Asp
545   550   555   560

Ser Leu Ser Ala Arg Pro Ser Val Arg Pro Leu Leu Leu Arg Thr Phe
                  565   570   575

Ser Asp Glu Ser Asn Val Leu
                  580

<210> 380

<211> 171

<212> PRT

<213> Homo sapiens

<400> 380

Met His Leu Trp Arg Tyr Pro Ser Leu Ser Ile His Gly Ile Glu Gly
  1   5   10   15

Ala Phe Asp Glu Pro Gly Thr Lys Thr Val Ile Pro Gly Arg Val Ile
                  20   25   30

Gly Lys Phe Ser Ile Arg Leu Val Pro His Met Asn Val Ser Ala Val
            35   40   45

Glu Lys Gln Val Thr Arg His Leu Glu Asp Val Phe Ser Lys Arg Asn
            50   55   60

Ser Ser Asn Lys Met Val Val Ser Met Thr Leu Gly Leu His Pro Trp

```
         65                    70                   75                    80
Ile Ala Asn Ile Asp Asp Thr Gln Tyr Leu Ala Ala Lys Arg Ala Ile
                     85                   90                   95
Arg Thr Val Phe Gly Thr Glu Pro Asp Met Ile Arg Asp Gly Ser Thr
                    100                  105                  110
Ile Pro Ile Ala Lys Met Phe Gln Glu Ile Val His Lys Ser Val Val
                    115                  120                  125
Leu Ile Pro Leu Gly Ala Val Asp Asp Gly Glu His Ser Gln Asn Glu
        130                  135                  140
Lys Ile Asn Arg Ser Ala Asp Ala Cys Ala Met Cys Leu Ser Leu Leu
145                  150                  155                  160
Pro Leu Leu His Thr Pro Gly Ser Thr Arg Gly
                    165                  170
```

<210> 381

<211> 446

<212> PRT

<213> Homo sapiens

<400> 381

```
Met Leu Gly Gly Val Val Glu Leu Ala Ala Ala Ser Ser Phe Pro Leu
 1               5                   10                   15
Leu Glu Gln Phe Ala Gly Asp Gly Phe His Ala Asp Gly Asp Asp Val
                20                   25                   30
Leu Thr Glu Leu Cys Ala Pro Asp Gly Ala Pro Pro Gly Val Val Pro
        35                   40                   45
Val Leu Ser Ala His Ser Pro Ser Leu Gly Ser Glu Tyr Phe Ile Arg
        50                   55                   60
```

Leu Glu Glu Ala Ala Pro Ala Thr Gly His Asp Pro Asp Cys Ala Gly
65   70   75   80

Cys Ala Pro Ser Pro Pro Ala Ile Ala Asp Gln Asp Asp Asp Ser Asp
                85   90   95

Gly Ser Thr Ala Ala Ser Leu Ala Met Glu Pro Leu Leu Gly His Gly
            100   105   110

Pro Pro Val Asp Val Pro Trp Gly Arg Gly Asp His Tyr Pro Arg Arg
            115   120   125

Ser Leu Ala Arg Asp Pro Leu Cys Pro Ser Arg Ser Pro Ser Pro Ser
            130   135   140

Ala Gly Pro Leu Ser Leu Ala Glu Gly Gly Ala Glu Asp Ala Asp Trp
145   150   155   160

Gly Val Ala Ala Phe Cys Pro Ala Phe Phe Glu Asp Pro Leu Gly Thr
                165   170   175

Ser Pro Leu Gly Ser Ser Gly Ala Pro Pro Leu Pro Leu Thr Gly Glu
            180   185   190

Asp Glu Leu Glu Glu Val Gly Ala Arg Arg Ala Ala Gln Arg Gly His
            195   200   205

Trp Arg Ser Asn Val Ser Ala Asn Asn Asn Ser Gly Ser Arg Cys Pro
    210   215   220

Glu Ser Trp Asp Pro Val Ser Ala Gly Gly His Ala Glu Gly Cys Pro
225   230   235   240

Ser Pro Lys Gln Thr Pro Arg Ala Ser Pro Glu Pro Gly Tyr Pro Gly
                245   250   255

Glu Pro Leu Leu Gly Leu Gln Ala Ala Ser Ala Gln Glu Pro Gly Cys
            260   265   270

Cys Pro Gly Leu Pro His Leu Cys Ser Ala Gln Gly Leu Ala Pro Ala
            275   280   285

Pro Cys Leu Val Thr Pro Ser Trp Thr Glu Thr Ala Ser Ser Gly Gly

```
           290                  295                  300
Asp His Pro Gln Ala Glu Pro Lys Leu Ala Thr Glu Ala Glu Gly Thr
305                  310                  315                  320
Thr Gly Pro Arg Leu Pro Leu Pro Ser Val Pro Ser Pro Ser Gln Glu
                325                  330                  335
Gly Ala Pro Leu Pro Ser Glu Glu Ala Ser Ala Pro Asp Ala Pro Asp
                    340                  345                  350
Ala Leu Pro Asp Ser Pro Thr Pro Ala Thr Gly Gly Glu Val Ser Ala
                    355                  360                  365
Ile Lys Leu Ala Ser Ala Leu Asn Gly Ser Ser Ser Ser Pro Glu Val
           370                  375                  380
Glu Ala Pro Ser Ser Glu Asp Glu Asp Thr Ala Glu Ala Thr Ser Gly
385                  390                  395                  400
Ile Phe Thr Asp Thr Ser Ser Asp Gly Leu Gln Ala Arg Arg Pro Asp
                    405                  410                  415
Val Val Pro Ala Phe Arg Ser Leu Gln Lys Gln Trp Pro Gln Arg Glu
                    420                  425                  430
Glu Ser Leu Pro Arg Leu Cys Leu Leu Leu Arg Pro Arg Gly
           435                  440                  445
```

<210> 382

<211> 106

<212> PRT

<213> Homo sapiens

<400> 382

```
Met Val Thr Lys Ala Thr Phe His Gln Lys Thr Gln Cys Trp Ala Cys
 1               5                  10                  15
```

Glu Glu Gly Val Gln Gln Ser Phe His Cys Pro Cys Arg Leu Gln Ala
                20   25   30

Ala Ala Ser Val Glu Arg Tyr Thr Glu Leu Leu Lys Glu Phe Leu Phe
                35   40   45

Lys Val Gln Ser Ser Asp Trp Met Pro Cys Trp Ile Pro Leu Leu Pro
            50   55   60

Gln Ala Leu Ile Thr Leu Ser Ser Cys Ser Leu Gly Lys Cys Thr Phe
        65   70   75   80

Tyr Thr Asn Val Arg Gln Phe Pro Gln Leu Pro Leu Leu Asp Ile Lys
                    85   90   95

Glu Phe Thr Phe Leu Thr Ile Phe Gln Ser
                    100   105

<210> 383

<211> 107

<212> PRT

<213> Homo sapiens

<400> 383

Met Tyr Leu Leu Ile Met Glu Phe Met Ser Phe Pro Ser Phe Ala Trp
    1   5   10   15

Pro Arg Phe Phe Phe Ser Leu Lys Phe Leu Leu Arg Cys Tyr Leu Gly
                20   25   30

Cys Leu His Tyr Lys Gln Ala Ala Leu Pro Pro Leu Phe Val Val Thr
                35   40   45

Gly Glu Lys Pro Tyr Lys Cys Thr Trp Glu Gly Cys Asp Trp Arg Phe
        50   55   60

Ala Arg Ser Asp Glu Leu Thr Arg His Tyr Arg Lys His Thr Gly Ala

```
         65                    70                    75                    80
Lys Pro Phe Gln Cys Gly Val Cys Asn Arg Ser Phe Ser Arg Ser Asp
                         85                    90                    95
His Leu Ala Leu His Met Lys Arg His Gln Asn
                        100                   105
```

<210> 384

<211> 667

<212> PRT

<213> Homo sapiens

<400> 384

```
Met Glu Asp Leu Ser Ser Pro Asp Ser Thr Leu Leu Gln Gly Gly His
 1                   5                    10                   15
Asn Leu Leu Ser Ser Ala Ser Phe Gln Glu Ala Val Thr Phe Lys Asp
                        20                   25                   30
Val Ile Val Asp Phe Thr Gln Glu Glu Trp Lys Gln Leu Asp Pro Gly
                   35                   40                   45
Gln Arg Asp Leu Phe Arg Asp Val Thr Leu Glu Asn Tyr Thr His Leu
              50                   55                   60
Val Ser Ile Gly Leu Gln Val Ser Lys Pro Asp Val Ile Ser Gln Leu
 65                   70                   75                   80
Glu Gln Gly Thr Glu Pro Trp Ile Met Glu Pro Ser Ile Pro Val Gly
                        85                   90                   95
Thr Cys Ala Asp Trp Glu Thr Arg Leu Glu Asn Ser Val Ser Ala Pro
                       100                  105                  110
Glu Pro Asp Ile Ser Glu Glu Glu Leu Ser Pro Glu Val Ile Val Glu
                       115                  120                  125
```

Lys His Lys Arg Asp Asp Ser Trp Ser Ser Asn Leu Leu Glu Ser Trp
130   135   140

Glu Tyr Glu Gly Ser Leu Glu Arg Gln Gln Ala Asn Gln Gln Thr Leu
145   150   155   160

Pro Lys Glu Ile Lys Val Thr Glu Lys Thr Ile Pro Ser Trp Glu Lys
                    165   170   175

Gly Pro Val Asn Asn Glu Phe Gly Lys Ser Val Asn Val Ser Ser Asn
                    180   185   190

Leu Val Thr Gln Glu Pro Ser Pro Glu Glu Thr Ser Thr Lys Arg Ser
                    195   200   205

Ile Lys Gln Asn Ser Asn Pro Val Lys Lys Glu Lys Ser Cys Lys Cys
210   215   220

Asn Glu Cys Gly Lys Ala Phe Ser Tyr Cys Ser Ala Leu Ile Arg His
225   230   235   240

Gln Arg Thr His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Glu
                    245   250   255

Lys Ala Phe Ser Arg Ser Glu Asn Leu Ile Asn His Gln Arg Ile His
                    260   265   270

Thr Gly Asp Lys Pro Tyr Lys Cys Asp Gln Cys Gly Lys Gly Phe Ile
                    275   280   285

Glu Gly Pro Ser Leu Thr Gln His Gln Arg Ile His Thr Gly Glu Lys
                    290   295   300

Pro Tyr Lys Cys Asp Glu Cys Gly Lys Ala Phe Ser Gln Arg Thr His
305   310   315   320

Leu Val Gln His Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Thr Cys
                    325   330   335

Asn Glu Cys Gly Lys Ala Phe Ser Gln Arg Gly His Phe Met Glu His
                    340   345   350

Gln Lys Ile His Thr Gly Glu Lys Pro Phe Lys Cys Asp Glu Cys Asp

　　　　　355　　　　　　　　　　360　　　　　　　　　365

Lys Thr Phe Thr Arg Ser Thr His Leu Thr Gln His Gln Lys Ile His

　　　370　　　　　　　　　375　　　　　　　　　380

Thr Gly Glu Lys Thr Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Asn

385　　　　　　　　　390　　　　　　　　　395　　　　　　　　　400

Gly Pro Ser Thr Phe Ile Arg His His Met Ile His Thr Gly Glu Lys

　　　　　　　405　　　　　　　　　410　　　　　　　　　415

Pro Tyr Glu Cys Asn Glu Cys Gly Lys Ala Phe Ser Gln His Ser Asn

　　　　　　　420　　　　　　　　　425　　　　　　　　　430

Leu Thr Gln His Gln Lys Thr His Thr Gln Glu Lys Ala Tyr Glu Cys

　　　　435　　　　　　　　　440　　　　　　　　　445

Lys Glu Cys Gly Lys Ala Phe Ile Arg Ser Ser Ser Leu Ala Lys His

　　　450　　　　　　　　　455　　　　　　　　　460

Glu Arg Ile His Thr Gly Glu Lys Pro Tyr Gln Cys His Glu Cys Gly

465　　　　　　　　　470　　　　　　　　　475　　　　　　　　　480

Lys Thr Phe Ser Tyr Gly Ser Ser Leu Ile Gln His Arg Lys Ile His

　　　　　　　485　　　　　　　　　490　　　　　　　　　495

Thr Gly Glu Arg Pro Tyr Lys Cys Asn Glu Cys Gly Arg Ala Phe Asn

　　　　　　　500　　　　　　　　　505　　　　　　　　　510

Gln Asn Ile His Leu Thr Gln His Lys Arg Ile His Thr Gly Ala Lys

　　　　515　　　　　　　　　520　　　　　　　　　525

Pro Tyr Glu Cys Ala Glu Cys Gly Lys Ala Phe Arg His Cys Ser Ser

　　　530　　　　　　　　　535　　　　　　　　　540

Leu Ala Gln His Gln Lys Thr His Thr Glu Glu Lys Pro Tyr Gln Cys

545　　　　　　　　　550　　　　　　　　　555　　　　　　　　　560

Asn Lys Cys Glu Lys Thr Phe Ser Gln Ser Ser His Leu Thr Gln His

　　　　　　　565　　　　　　　　　570　　　　　　　　　575

Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Asp

　　　　580　　　　　　　　　585　　　　　　　　　590

```
Lys Ala Phe Ser Arg Ser Thr His Leu Thr Glu His Gln Asn Thr His
        595             600             605
Thr Gly Glu Lys Pro Tyr Asn Cys Asn Glu Cys Arg Lys Thr Phe Ser
        610             615             620
Gln Ser Thr Tyr Leu Ile Gln His Gln Arg Ile His Ser Gly Glu Lys
625             630             635             640
Pro Phe Gly Cys Asn Asp Cys Gly Lys Ser Phe Arg Tyr Arg Ser Ala
                645             650             655
Leu Asn Lys His Gln Arg Leu His Pro Gly Ile
                660             665
```

<210> 385

<211> 460

<212> PRT

<213> Homo sapiens

<400> 385

```
Met Glu Val Leu Glu Ser Gly Glu Gln Gly Val Leu Gln Trp Asp Arg
1               5               10              15
Lys Leu Ser Glu Leu Ser Glu Pro Gly Asp Gly Glu Ala Leu Met Tyr
            20              25              30
His Thr His Phe Ser Glu Leu Leu Asp Glu Phe Ser Gln Asn Val Leu
            35              40              45
Gly Gln Leu Leu Asn Asp Pro Phe Leu Ser Glu Lys Ser Val Ser Met
        50              55              60
Glu Val Glu Pro Ser Pro Thr Ser Pro Ala Pro Leu Ile Gln Ala Glu
65              70              75              80
His Ser Tyr Ser Leu Cys Glu Glu Pro Arg Ala Gln Ser Pro Phe Thr
```

　　　　　　　　　　　　85　　　　　　　　　90　　　　　　　　　95

His Ile Thr Thr Ser Asp Ser Phe Asn Asp Asp Glu Val Glu Ser Glu

　　　　　　　　　　　100　　　　　　　　105　　　　　　　　110

Lys Trp Tyr Leu Ser Thr Asp Phe Pro Ser Thr Ser Ile Lys Thr Glu

　　　　　　　　　　　115　　　　　　　　120　　　　　　　　125

Pro Val Thr Asp Glu Pro Pro Pro Gly Leu Val Pro Ser Val Thr Leu

　　　　　　　　　　　130　　　　　　　　135　　　　　　　　140

Thr Ile Thr Ala Ile Ser Thr Pro Leu Glu Lys Glu Glu Pro Pro Leu

145　　　　　　　　150　　　　　　　　155　　　　　　　　160

Glu Met Asn Thr Gly Val Asp Ser Ser Cys Gln Thr Ile Ile Pro Lys

　　　　　　　　　　　165　　　　　　　　170　　　　　　　　175

Ile Lys Leu Glu Pro His Glu Val Asp Gln Phe Leu Asn Phe Ser Pro

　　　　　　　　　　　180　　　　　　　　185　　　　　　　　190

Lys Glu Ala Pro Val Asp His Leu His Leu Pro Pro Thr Pro Pro Ser

　　　　　　　　　　　195　　　　　　　　200　　　　　　　　205

Ser His Gly Ser Asp Ser Glu Gly Ser Leu Ser Pro Asn Pro Arg Leu

　　　　　　　　　　　210　　　　　　　　215　　　　　　　　220

His Pro Phe Ser Leu Pro Gln Thr His Ser Pro Ser Arg Ala Ala Pro

225　　　　　　　　230　　　　　　　　235　　　　　　　　240

Arg Ala Pro Ser Ala Leu Ser Ser Ser Pro Leu Leu Thr Ala Pro His

　　　　　　　　　　　245　　　　　　　　250　　　　　　　　255

Lys Leu Gln Gly Ser Gly Pro Leu Val Leu Thr Glu Glu Glu Lys Arg

　　　　　　　　　　　260　　　　　　　　265　　　　　　　　270

Thr Leu Ile Ala Glu Gly Tyr Pro Ile Pro Thr Lys Leu Pro Leu Ser

　　　　　　　　　　　275　　　　　　　　280　　　　　　　　285

Lys Ser Glu Glu Lys Ala Leu Lys Lys Ile Arg Arg Lys Ile Lys Asn

　　　　　　　　　　　290　　　　　　　　295　　　　　　　　300

Lys Ile Ser Ala Gln Glu Ser Arg Arg Lys Lys Lys Glu Tyr Met Asp

305　　　　　　　　310　　　　　　　　315　　　　　　　　320

Ser Leu Glu Lys Lys Val Glu Ser Cys Ser Thr Glu Asn Leu Glu Leu
　　　　　　　　325　　　　　　　　330　　　　　　　　335

Arg Lys Lys Val Glu Val Leu Glu Asn Thr Asn Arg Thr Leu Leu Gln
　　　　　　　　340　　　　　　　　345　　　　　　　　350

Gln Leu Gln Lys Leu Gln Thr Leu Val Met Gly Lys Val Ser Arg Thr
　　　　　　　　355　　　　　　　　360　　　　　　　　365

Cys Lys Leu Ala Gly Thr Gln Thr Gly Thr Cys Leu Met Val Val Val
　　　　　　　　370　　　　　　　　375　　　　　　　　380

Leu Cys Phe Ala Val Ala Phe Gly Ser Phe Phe Gln Gly Tyr Gly Pro
385　　　　　　　　390　　　　　　　　395　　　　　　　　400

Tyr Pro Ser Ala Thr Lys Met Ala Leu Pro Ser Gln His Ser Leu Gln
　　　　　　　　405　　　　　　　　410　　　　　　　　415

Glu Pro Tyr Thr Ala Ser Val Gly Lys Thr Ala Cys Gly Lys Leu Gly
　　　　　　　　420　　　　　　　　425　　　　　　　　430

Arg Val Leu Phe Tyr Phe Pro Arg Ala Gly Phe Leu Ser Leu Pro Lys
　　　　　　　　435　　　　　　　　440　　　　　　　　445

Gly Ile Phe Cys Glu Ser Pro Met Phe Lys Lys Trp
　　　　　　　　450　　　　　　　　455　　　　　　　　460

<210> 386

<211> 443

<212> PRT

<213> Homo sapiens

<400> 386

Met Glu His Val Gln Gly Arg Ile Phe Arg Asp Leu Thr Ile Pro Gly
1　　　　　　　　5　　　　　　　　10　　　　　　　　15

Leu Ser Pro Ala Glu Arg Ser Ala Ile Tyr Val Ala Thr Val Glu Thr

```
                 20                    25                    30
Leu Ala Gln Leu His Ser Leu Asn Ile Gln Ser Leu Gln Leu Glu Gly
                 35                    40                    45
Tyr Gly Ile Gly Ala Gly Tyr Cys Lys Arg Gln Val Ser Thr Trp Thr
                 50                    55                    60
Lys Gln Tyr Gln Ala Ala Ala His Gln Asp Ile Pro Ala Met Gln Gln
        65                    70                    75                    80
Leu Ser Glu Trp Leu Met Lys Asn Leu Pro Asp Asn Asp Asn Glu Glu
                      85                    90                    95
Asn Leu Ile His Gly Asp Phe Arg Leu Asp Asn Ile Val Phe His Pro
                      100                   105                   110
Lys Glu Cys Arg Val Ile Ala Val Leu Asp Trp Glu Leu Ser Thr Ile
                 115                   120                   125
Gly His Pro Leu Ser Asp Leu Ala His Phe Ser Leu Phe Tyr Phe Trp
                 130                   135                   140
Pro Arg Thr Val Pro Met Ile Asn Gln Gly Ser Tyr Ser Glu Asn Ser
        145                   150                   155                   160
Gly Ile Pro Ser Met Glu Glu Leu Ile Ser Ile Tyr Cys Arg Cys Arg
                      165                   170                   175
Gly Ile Asn Ser Ile Leu Pro Asn Trp Asn Phe Phe Leu Ala Leu Ser
                      180                   185                   190
Tyr Phe Lys Met Ala Gly Ile Ala Gln Gly Val Tyr Ser Arg Tyr Leu
                 195                   200                   205
Leu Gly Asn Asn Ser Ser Glu Asp Ser Phe Leu Phe Ala Asn Ile Val
        210                   215                   220
Gln Pro Leu Ala Glu Thr Gly Leu Gln Leu Ser Lys Arg Thr Phe Ser
        225                   230                   235                   240
Thr Val Leu Pro Gln Ile Asp Thr Thr Gly Gln Leu Phe Val Gln Thr
                 245                   250                   255
```

```
Arg Lys Gly Gln Glu Val Leu Ile Lys Val Lys His Phe Met Lys Gln
            260                 265                 270
His Ile Leu Pro Ala Glu Lys Glu Val Thr Glu Phe Tyr Val Gln Asn
            275                 280                 285
Glu Asn Ser Val Asp Lys Trp Gly Lys Pro Leu Val Ile Asp Lys Leu
            290                 295                 300
Lys Glu Met Ala Lys Val Glu Gly Leu Trp Asn Leu Phe Leu Pro Ala
305                 310                 315                 320
Val Ser Gly Leu Ser His Val Asp Tyr Ala Leu Ile Ala Glu Glu Thr
                325                 330                 335
Gly Lys Cys Phe Phe Ala Pro Asp Val Phe Asn Cys Gln Ala Pro Asp
                340                 345                 350
Thr Gly Asn Met Glu Val Leu His Leu Tyr Gly Ser Glu Glu Gln Lys
                355                 360                 365
Lys Gln Trp Leu Glu Pro Leu Leu Gln Gly Asn Ile Thr Ser Cys Phe
            370                 375                 380
Cys Met Thr Glu Pro Asp Val Ala Ser Ser Asp Ala Thr Asn Ile Glu
385                 390                 395                 400
Cys Ser Ile Gln Arg Asp Glu Asp Ser Tyr Val Ile Asn Gly Lys Lys
                405                 410                 415
Trp Trp Ser Ser Gly Ala Gly Asn Pro Lys Cys Lys Ile Ala Ile Val
            420                 425                 430
Leu Gly Arg Thr Gln Asn Thr Ser Leu Ser Arg
            435                 440
```

<210> 387

<211> 370

<212> PRT

<213> Homo sapiens

<400> 387

Met Met Thr Pro Gln Val Ile Thr Pro Gln Gln Met Gln Gln Ile Leu
1   5   10   15

Gln Gln Gln Val Leu Ser Pro Gln Gln Leu Gln Ala Leu Leu Gln Gln
                20   25   30

Gln Gln Ala Val Met Leu Gln Gln Asp Phe Leu Asp Ser Gly Leu Glu
            35   40   45

Asn Phe Arg Ala Ala Leu Glu Lys Asn Gln Gln Leu Gln Glu Phe Tyr
        50   55   60

Lys Lys Gln Gln Glu Gln Leu His Leu Gln Leu Leu Gln Gln Gln Gln
65   70   75   80

Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
                85   90   95

Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
            100   105   110

Gln Gln Gln Gln His Pro Gly Lys Gln Ala Lys Glu Gln Gln Gln Gln
            115   120   125

Gln Gln Gln Gln Gln Gln Leu Ala Ala Gln Gln Leu Val Phe Gln Gln
            130   135   140

Gln Leu Leu Gln Met Gln Gln Leu Gln Gln Gln Gln His Leu Leu Ser
145   150   155   160

Leu Gln Arg Gln Gly Leu Ile Ser Ile Pro Pro Gly Gln Ala Ala Leu
                165   170   175

Pro Val Gln Ser Leu Pro Gln Ala Gly Leu Ser Pro Ala Glu Ile Gln
            180   185   190

Gln Leu Trp Lys Glu Val Thr Gly Val His Ser Met Glu Asp Asn Gly
            195   200   205

Ile Lys His Gly Gly Leu Asp Leu Thr Thr Asn Asn Ser Ser Ser Thr
210   215   220

Thr Ser Ser Asn Thr Ser Lys Ala Ser Pro Pro Ile Thr His His Ser
225   230   235   240

Ile Val Asn Gly Gln Ser Ser Val Leu Ser Ala Arg Arg Asp Ser Ser
                 245   250   255

Ser His Glu Glu Thr Gly Ala Ser His Thr Leu Tyr Gly His Gly Val
                 260   265   270

Cys Lys Trp Pro Gly Cys Glu Ser Ile Cys Glu Asp Phe Gly Gln Phe
                 275   280   285

Leu Lys His Leu Asn Asn Glu His Ala Leu Asp Asp Arg Ser Thr Ala
                 290   295   300

Gln Cys Arg Val Gln Met Gln Val Val Gln Gln Leu Glu Ile Gln Leu
305   310   315   320

Ser Lys Glu Arg Glu Arg Leu Gln Ala Met Met Thr His Leu His Met
                 325   330   335

Arg Pro Ser Glu Pro Lys Pro Ser Pro Lys Pro Lys Leu Pro Gln Thr
                 340   345   350

Met Asn Phe Ile Lys Met Gln Met Ser Asp Leu His Leu Leu Met Gln
                 355   360   365

Leu Ser
370

<210> 388

<211> 379

<212> PRT

<213> Homo sapiens

<400> 388

Met	Ser	Arg	Gly	Tyr	Ser	Glu	Asn	Asn	Asn	Phe	Leu	Asn	Asn	Asn
1				5					10					15

Gln	Met	Val	Leu	Asp	Met	Ile	Leu	Tyr	Pro	Leu	Ile	Gly	Ile	Pro	Gln

Gln Met Val Leu Asp Met Ile Leu Tyr Pro Leu Ile Gly Ile Pro Gln
　　　　　　20　　　　　　　25　　　　　　　30

Thr Ile Asn Trp Glu Thr Ile Ala Arg Leu Val Pro Gly Leu Thr Pro
　　　　　35　　　　　　　40　　　　　　　45

Lys Glu Cys Ala Lys Arg Phe Asp Glu Leu Lys Ser Ser Gly Ser Ser
　　　50　　　　　　　55　　　　　　　60

Pro Val Asp Asn Gln Tyr Asn Ser Leu Met Ala Ala Gly Glu Ser Pro
65　　　　　　70　　　　　　　75　　　　　　　80

Val Glu Thr Leu Ala Thr Tyr Ile Lys Ser Ser Leu Leu Asp Ile His
　　　　　　85　　　　　　　90　　　　　　　95

Gly Glu Phe Gln Glu Thr Pro Val Gly His Asp Ala Val Ser Lys Thr
　　　　　　100　　　　　　105　　　　　　110

Gly Arg His Ser Ile Ala Ser Thr Arg Asn Cys Ser Ser Glu Ser Glu
　　　　　115　　　　　　120　　　　　　125

Asn Cys Thr Thr His Asn Gly Gly Glu Met Thr Glu Glu Ser Glu Gly
　　　　　130　　　　　　135　　　　　　140

Pro Asn Met Val Ile His Val Cys Asp Glu Ala Lys Asn Leu Lys Glu
145　　　　　　150　　　　　　155　　　　　　160

Asp Phe Thr Cys Pro Arg Asp Leu Leu Ile Ser Glu Met Lys Tyr Phe
　　　　　　165　　　　　　170　　　　　　175

Ala Glu Tyr Leu Ser Met Asp Ala Gln Arg Trp Glu Glu Val Asp Ile
　　　　　　180　　　　　　185　　　　　　190

Ser Val His Cys Asp Val His Ile Phe Asn Trp Leu Ile Lys Tyr Ile
　　　　　195　　　　　　200　　　　　　205

Lys Arg Asn Thr Lys Glu Asn Lys Asp Cys Glu Met Pro Thr Leu Glu
　　　　　210　　　　　　215　　　　　　220

●

Pro Gly Asn Val Ile Ser Ile Leu Ile Ser Ser Glu Phe Leu Lys Met
225   230   235   240

Asp Ser Leu Val Glu Gln Cys Ile Gln Tyr Cys His Lys Asn Met Asn
            245   250   255

Ala Ile Val Ala Thr Pro Cys Asn Met Asn Cys Ile Asn Ala Asn Leu
            260   265   270

Leu Thr Arg Ile Ala Asp Leu Phe Ser His Asn Glu Val Asp Asp Leu
            275   280   285

Lys Asp Lys Lys Asp Lys Phe Lys Ser Lys Leu Phe Cys Lys Lys Ile
            290   295   300

●

Glu Arg Leu Phe Asp Pro Glu Tyr Leu Asn Pro Asp Ser Arg Ser Asn
305   310   315   320

Ala Ala Thr Leu Tyr Arg Cys Cys Leu Cys Lys Lys Leu Leu Thr Lys
            325   330   335

Glu Thr Glu Arg Arg Ile Pro Cys Ile Pro Gly Lys Ile Asn Val Asp
            340   345   350

Arg Arg Gly Asn Ile Val Tyr Ile His Ile Arg Cys Arg Glu Asp Lys
            355   360   365

Ile His Thr Cys Ile Phe Val Tyr Ile Tyr Ile
            370   375

●

<210> 389

<211> 155

<212> PRT

<213> Homo sapiens

<400> 389

Met His Lys Tyr Ile Leu Ile Val Lys Asp Leu Asn Pro Thr Glu Pro

```
 1                5                    10                   15
Pro Gln Cys Val Gly Ile Phe Pro Pro Leu Ser Pro Ile His Ala Ser
           20               25               30
Leu Leu Tyr Pro Leu Pro Pro Cys Ser Gly Pro Pro Cys Pro Leu Ser
           35               40               45
Ser Cys Trp Val Cys Cys Trp Glu Ser Ala Gly Asp Arg Lys Asp Arg
        50               55               60
Gly Glu Arg Gly Gln Gly Thr Asn Phe Pro Ser Pro Pro Leu Gln Ser
65               70               75               80
His Gly Pro Ala Ala Phe Leu Tyr Gln Arg Phe Gln Leu Leu Pro Gly
                85               90               95
Gly Val Pro Lys Ser Ser Phe Ser Leu Gly His His Ala Ser Leu Pro
           100              105              110
Pro Ser Gln Pro Lys Ala Ser His Gly Ala His Arg Phe Leu Ser Arg
           115              120              125
Val Leu Ser Ile Met Phe Leu Cys Ile Leu Ser Met Leu Tyr Asn Trp
        130              135              140
Ser Phe Ile Lys Phe Cys Leu Asn Gly Pro Ile
145              150              155
```

<210> 390

<211> 421

<212> PRT

<213> Homo sapiens

<400> 390

```
Met Met Tyr Arg Thr Val Gly Phe Gly Thr Arg Ser Arg Asn Leu Lys
 1                5                    10                   15
```

Pro Trp Met Ile Ala Val Leu Ile Val Leu Ser Leu Thr Val Val Ala
　　　　　　20　　　　　　　　25　　　　　　　　30

Val Thr Ile Gly Leu Leu Val His Phe Leu Val Phe Asp Gln Lys Lys
　　　　　　35　　　　　　　　40　　　　　　　　45

Glu Tyr Tyr His Gly Ser Phe Lys Ile Leu Asp Pro Gln Ile Asn Asn
　　　　50　　　　　　　55　　　　　　　　60

Asn Phe Gly Gln Ser Asn Thr Tyr Gln Leu Lys Asp Leu Arg Glu Thr
65　　　　　　　　70　　　　　　　75　　　　　　　　80

Thr Glu Asn Leu Val Ser Gln Val Asp Glu Ile Phe Ile Asp Ser Ala
　　　　　　85　　　　　　　　90　　　　　　　　95

Trp Lys Lys Asn Tyr Ile Lys Asn Gln Val Val Arg Leu Thr Pro Glu
　　　　　　100　　　　　　　105　　　　　　　110

Glu Asp Gly Val Lys Val Asp Val Ile Met Val Phe Gln Phe Pro Ser
　　　　　115　　　　　　　120　　　　　　　125

Thr Glu Gln Arg Ala Val Arg Glu Lys Lys Ile Gln Ser Ile Leu Asn
　　130　　　　　　　135　　　　　　　140

Gln Lys Ile Arg Asn Leu Arg Ala Leu Pro Ile Asn Ala Ser Ser Val
145　　　　　　　150　　　　　　　155　　　　　　　160

Gln Val Asn Ala Met Ser Ser Ser Thr Gly Glu Leu Thr Val Gln Ala
　　　　　　165　　　　　　　170　　　　　　　175

Ser Cys Gly Lys Arg Val Val Pro Leu Asn Val Asn Arg Ile Ala Ser
　　　　　180　　　　　　　185　　　　　　　190

Gly Val Ile Ala Pro Lys Ala Ala Trp Pro Trp Gln Ala Ser Leu Gln
　　　　　195　　　　　　　200　　　　　　　205

Tyr Asp Asn Ile His Gln Cys Gly Ala Thr Leu Ile Ser Asn Thr Trp
　　210　　　　　　　215　　　　　　　220

Leu Val Thr Ala Ala His Cys Phe Gln Lys Tyr Lys Asn Pro His Gln
225　　　　　　　230　　　　　　　235　　　　　　　240

Trp Thr Val Ser Phe Gly Thr Lys Ile Asn Pro Pro Leu Met Lys Arg

```
              245              250              255
Asn Val Arg Arg Phe Ile Ile His Glu Lys Tyr Arg Ser Ala Ala Arg
              260              265              270
Glu Tyr Asp Ile Ala Val Val Gln Val Ser Ser Arg Val Thr Phe Ser
              275              280              285
Asp Asp Ile Arg Arg Ile Cys Leu Pro Glu Ala Ser Ala Ser Phe Gln
         290              295              300
Pro Asn Leu Thr Val His Ile Thr Gly Phe Gly Ala Leu Tyr Tyr Gly
305              310              315              320
Gly Glu Ser Gln Asn Asp Leu Arg Glu Ala Arg Val Lys Ile Ile Ser
              325              330              335
Asp Asp Val Cys Lys Gln Pro Gln Val Tyr Gly Asn Asp Ile Lys Pro
              340              345              350
Gly Met Phe Cys Ala Gly Tyr Met Glu Gly Ile Tyr Asp Ala Cys Arg
         355              360              365
Gly Asp Ser Gly Gly Pro Leu Val Thr Arg Asp Leu Lys Asp Thr Trp
         370              375              380
Tyr Leu Ile Gly Ile Val Ser Trp Gly Asp Asn Cys Gly Gln Lys Asp
385              390              395              400
Lys Pro Gly Val Tyr Thr Gln Val Thr Tyr Tyr Arg Asn Trp Ile Ala
              405              410              415
Ser Lys Thr Gly Ile
              420
```

<210> 391

<211> 495

<212> PRT

<213> Homo sapiens

<400> 391

```
Met Ala Ala Glu Pro Gln Pro Ser Ser Leu Ser Tyr Arg Thr Thr Gly
1               5                   10                  15
Ser Thr Tyr Leu His Pro Leu Ser Glu Leu Leu Gly Ile Pro Leu Asp
            20                  25                  30
Gln Val Asn Phe Val Val Cys Gln Leu Val Ala Leu Phe Ala Ala Phe
            35                  40                  45
Trp Phe Arg Ile Tyr Leu Arg Pro Gly Thr Thr Ser Ser Asp Val Arg
            50                  55                  60
His Ala Val Ala Thr Ile Phe Gly Ile Tyr Phe Val Ile Phe Cys Phe
65                  70                  75                  80
Gly Trp Tyr Ser Val His Leu Phe Val Leu Val Leu Met Cys Tyr Ala
                85                  90                  95
Ile Met Val Thr Ala Ser Val Ser Asn Ile His Arg Tyr Ser Phe Phe
                100                 105                 110
Val Ala Met Gly Tyr Leu Thr Ile Cys His Ile Ser Arg Ile Tyr Ile
            115                 120                 125
Phe His Tyr Gly Ile Leu Thr Thr Asp Phe Ser Gly Pro Leu Met Ile
            130                 135                 140
Val Thr Gln Lys Ile Thr Thr Leu Ala Phe Gln Val His Asp Gly Leu
145                 150                 155                 160
Gly Arg Arg Ala Glu Asp Leu Ser Ala Glu Gln His Arg Leu Ala Ile
                165                 170                 175
Lys Val Lys Pro Ser Phe Leu Glu Tyr Leu Ser Tyr Leu Leu Asn Phe
                180                 185                 190
Met Ser Val Ile Ala Gly Pro Cys Asn Asn Phe Lys Asp Tyr Ile Ala
                195                 200                 205
Phe Ile Glu Gly Lys His Ile His Met Lys Leu Leu Glu Val Asn Trp
```

●

```
        210                215                220
Lys Arg Lys Gly Phe His Ser Leu Pro Glu Pro Ser Pro Thr Gly Ala
225                230                235                240
Val Ile His Lys Leu Gly Ile Thr Leu Val Ser Leu Leu Leu Phe Leu
                245                250                255
Thr Leu Thr Lys Thr Phe Pro Val Thr Cys Leu Val Asp Asp Trp Phe
                260                265                270
Val His Lys Ala Ser Phe Pro Ala Arg Leu Cys Tyr Leu Tyr Val Val
                275                280                285
Met Gln Ala Ser Lys Pro Lys Tyr Tyr Phe Ala Trp Thr Leu Ala Asp
        290                295                300
Ala Val Asn Asn Ala Ala Gly Phe Gly Phe Ser Gly Val Asp Lys Asn
305                310                315                320
Gly Asn Phe Cys Trp Asp Leu Leu Ser Asn Leu Asn Ile Trp Lys Ile
                325                330                335
Glu Thr Ala Thr Ser Phe Lys Met Tyr Leu Glu Asn Trp Asn Ile Gln
                340                345                350
Thr Ala Thr Trp Leu Lys Cys Val Cys Tyr Gln Arg Val Pro Trp Tyr
        355                360                365
Pro Thr Val Leu Thr Phe Ile Leu Ser Ala Leu Trp His Gly Val Tyr
        370                375                380
Pro Gly Tyr Tyr Phe Thr Phe Leu Thr Gly Ile Leu Val Thr Leu Ala
385                390                395                400
Ala Arg Ala Val Arg Asn Asn Tyr Arg His Tyr Phe Leu Ser Ser Arg
                405                410                415
Ala Leu Lys Ala Val Tyr Asp Ala Gly Thr Trp Ala Val Thr Gln Leu
                420                425                430
Ala Val Ser Tyr Thr Val Ala Pro Phe Val Met Leu Ala Val Glu Pro
        435                440                445
```

●

●

Thr Ile Ser Leu Tyr Lys Ser Met Tyr Phe Tyr Leu His Ile Ile Ser
　　450　　　　　　　　455　　　　　　　460

Leu Leu Ile Ile Leu Phe Leu Pro Met Lys Pro Gln Ala His Thr Gln
465　　　　　　　470　　　　　　　475　　　　　　　480

Arg Arg Pro Gln Thr Leu Asn Ser Ile Asn Lys Arg Lys Thr Asp
　　　　　　　485　　　　　　　490　　　　　　　495

<210> 392

<211> 953

<212> PRT

<213> Homo sapiens

<400> 392

Met Cys Asn Pro Glu Glu Ala Ala Leu Leu Arg Leu Glu Glu Val Phe
1　　　　　　　5　　　　　　　10　　　　　　　15

Ser Ala Thr Leu Ala His Val Asn Ser Leu Val Leu Gln Pro Leu Leu
　　　　　　　20　　　　　　　25　　　　　　　30

Pro Ala Ala Pro Asp Pro Ser Asp Pro Trp Gly Arg Glu Cys Leu Arg
　　　　　　　35　　　　　　　40　　　　　　　45

Leu Leu Gln Gln Leu His Lys Ser Ser Gln Gln Leu Trp Glu Val Thr
　　　50　　　　　　　55　　　　　　　60

Glu Glu Ser Leu His Ser Leu Gln Glu Arg Leu Arg Tyr Pro Asp Ser
65　　　　　　　70　　　　　　　75　　　　　　　80

Thr Gly Leu Glu Ser Leu Leu Leu Leu Arg Gly Ala Asp Arg Val Leu
　　　　　　　85　　　　　　　90　　　　　　　95

Gln Ala His Ile Glu Tyr Ile Glu Ser Tyr Thr Ser Cys Met Val Val
　　　　　　　100　　　　　　　105　　　　　　　110

Gln Ala Phe Gln Lys Ala Ala Lys Arg Arg Ser Glu Tyr Trp Arg Gly

●

```
              115                  120                  125
Gln Arg Lys Ala Leu Arg Gln Leu Leu Ser Gly Val Ser Ser Glu Gly
         130                  135                  140
Ser Val Gly Ala Ser Leu Gly Gln Ala Leu His Gln Pro Leu Ala His
145                  150                  155                  160
His Val Gln Gln Tyr Val Leu Leu Leu Ser Pro Gly Asp Thr Ile
                   165                  170                  175
Gly Glu His His Pro Thr Arg Glu Leu Val Val Asn Ala Val Thr Leu
                   180                  185                  190
```

●

```
Phe Gly Asn Leu Gln Ser Phe Met Lys Gln Glu Leu Asp Gln Ala Val
              195                  200                  205
Ala Thr Gln Ala Leu Trp His Thr Leu Arg Gly Arg Leu Arg Asp Val
         210                  215                  220
Leu Cys Thr Pro Ala His Arg Leu Leu Gln Asp Ser Gln Asp Val Pro
225                  230                  235                  240
Val Thr Val Ala Pro Leu Arg Ala Glu Arg Val Leu Leu Phe Asp Asp
                   245                  250                  255
Ala Leu Val Leu Leu Gln Gly His Asn Val His Thr Phe Asp Leu Lys
                   260                  265                  270
```

●

```
Leu Val Trp Val Asp Pro Gly Gln Asp Gly Cys Thr Phe His Leu Leu
              275                  280                  285
Thr Pro Glu Glu Glu Phe Ser Phe Cys Ala Lys Asp Ser Gln Gly Gln
         290                  295                  300
Ala Val Trp Gln Trp Lys Val Thr Trp Ala Val His Gln Ala Leu His
305                  310                  315                  320
Gly Lys Lys Asp Phe Pro Val Leu Gly Ala Gly Leu Glu Pro Ser Gln
                   325                  330                  335
Pro Pro Asp Cys Arg Cys Ala Glu Tyr Thr Phe Gln Ala Glu Gly Arg
                   340                  345                  350
```

```
Leu Cys Gln Ala Thr Tyr Glu Gly Glu Trp Cys Arg Gly Arg Pro His
        355                 360                 365
Gly Lys Gly Thr Leu Lys Trp Pro Asp Gly Arg Asn His Val Gly Asn
        370                 375                 380
Phe Cys Gln Gly Leu Glu His Gly Phe Gly Ile Arg Leu Leu Pro Gln
385                 390                 395                 400
Ala Ser Glu Asp Lys Phe Asp Cys Tyr Lys Cys His Trp Arg Glu Gly
                405                 410                 415
Ser Met Cys Gly Tyr Gly Ile Cys Glu Tyr Ser Thr Asp Gly Val Tyr
                420                 425                 430
Lys Gly Tyr Phe Gln Glu Gly Leu Arg His Gly Phe Gly Val Leu Glu
        435                 440                 445
Ser Gly Pro Gln Ala Pro Gln Pro Phe Arg Tyr Thr Gly His Trp Glu
        450          ·        455                 460
Arg Gly Gln Arg Ser Gly Tyr Gly Ile Glu Glu Asp Gly Asp Arg Gly
465                 470                 475                 480
Glu Arg Tyr Ile Gly Met Trp Gln Ala Gly Gln Arg His Gly Pro Gly
                485                 490                 495
Val Met Val Thr Gln Ala Gly Val Cys Tyr Gln Gly Thr Phe Gln Ala
                500                 505                 510
Asp Lys Thr Val Gly Pro Gly Ile Leu Leu Ser Glu Asp Asp Ser Leu
        515                 520                 525
Tyr Glu Gly Thr Phe Thr Arg Asp Leu Thr Leu Met Gly Lys Gly Lys
        530                 535                 540
Val Thr Phe Pro Asn Gly Phe Thr Leu Glu Gly Ser Phe Gly Ser Gly
545                 550                 555                 560
Ala Gly Arg Gly Leu His Thr Gln Gly Val Leu Asp Thr Ala Ala Leu
        565                 570                 575
Pro Pro Asp Pro Ser Ser Thr Cys Lys Arg Gln Leu Gly Val Gly Ala
```

```
                    580                     585                      590
    Phe Pro Val Glu Ser Arg Trp Gln Gly Val Tyr Ser Pro Phe Arg Asp
                    595                     600                      605
    Phe Val Cys Ala Gly Cys Pro Arg Asp Leu Gln Glu Ala Leu Leu Gly
                    610                     615                      620
    Phe Asp Val Gln Ser Ser Arg Glu Leu Arg Arg Ser Gln Asp Tyr Leu
    625                     630                     635                      640
    Ser Cys Glu Arg Thr His Pro Glu Asp Ser Val Gly Ser Met Glu Asp
                    645                     650                      655
    Ile Leu Glu Glu Leu Leu Gln His Arg Glu Pro Lys Ala Leu Gln Leu
                    660                     665                      670
    Tyr Leu Arg Lys Ala Leu Ser Asn Ser Leu His Pro Leu Gly Lys Leu
                    675                     680                      685
    Leu Arg Thr Leu Met Leu Thr Phe Gln Ala Thr Tyr Ala Gly Val Gly
                    690                     695                      700
    Ala Asn Lys His Leu Gln Glu Leu Ala Gln Glu Glu Val Lys Gln His
    705                     710                     715                      720
    Ala Gln Glu Leu Trp Ala Ala Tyr Arg Gly Leu Leu Arg Val Ala Leu
                    725                     730                      735
    Glu Arg Lys Gly Gln Ala Leu Glu Glu Asp Glu Asp Thr Glu Thr Arg
                    740                     745                      750
    Asp Leu Gln Val His Gly Leu Val Leu Pro Leu Met Leu Pro Ser Phe
                    755                     760                      765
    Tyr Ser Glu Leu Phe Thr Leu Tyr Leu Leu Leu His Glu Arg Glu Asp
    770                     775                     780
    Ser Phe Tyr Ser Gln Gly Ile Ala Asn Leu Ser Leu Phe Pro Asp Thr
    785                     790                     795                      800
    Gln Leu Leu Glu Phe Leu Asp Val Gln Lys His Leu Trp Pro Leu Lys
                    805                     810                      815
```

Asp Leu Thr Leu Thr Ser Asn Gln Arg Tyr Ser Leu Val Arg Asp Lys
          820   825   830

Cys Phe Leu Ser Ala Thr Glu Cys Leu Gln Lys Ile Met Thr Thr Val
          835   840   845

Asp Pro Arg Glu Lys Leu Glu Val Leu Glu Arg Thr Tyr Gly Glu Ile
          850   855   860

Glu Gly Thr Val Ser Arg Val Leu Gly Arg Glu Tyr Lys Leu Pro Met
865   870   875   880

Asp Asp Leu Leu Pro Leu Leu Ile Tyr Val Val Ser His Ala Arg Ile
          885   890   895

Gln His Leu Gly Ala Glu Ile His Leu Ile Arg Asp Met Met Asp Pro
          900   905   910

Asn His Thr Gly Gly Leu Tyr Asp Phe Leu Leu Thr Ala Leu Glu Ser
          915   920   925

Cys Tyr Glu His Ile Gln Lys Glu Asp Met Arg Leu His Arg Leu Pro
930   935   940

Gly His Trp His Ser Arg Glu Leu Trp
945   950

<210> 393

<211> 331

<212> PRT

<213> Homo sapiens

<400> 393

Met Asn Val Lys Asn Val Gly Lys Leu Asn Gln Ser Ser Asp Leu Leu
1   5   10   15

Arg His His Arg Ile His Ser Gly Glu Lys Pro Tyr Val Cys Asn Lys

　　　　　　　　　20　　　　　　　　　25　　　　　　　　　30

Cys Gly Glu Ser Phe Arg Ser Ser Ser Asp Leu Ile Lys His His Arg

　　　　　　　　　35　　　　　　　　　40　　　　　　　　　45

Val His Thr Gly Glu Lys Pro His Glu Cys Ser Glu Cys Gly Lys Val

　　　　　　　　　50　　　　　　　　　55　　　　　　　　　60

Phe Ser Gln Arg Ser His Leu Val Thr His Gln Lys Ile His Thr Gly

65　　　　　　　　　70　　　　　　　　　75　　　　　　　　　80

Glu Lys Pro Tyr Gln Cys Thr Glu Cys Glu Lys Ala Phe Arg Arg Arg

　　　　　　　　　85　　　　　　　　　90　　　　　　　　　95

Ser Leu Leu Ile Gln Arg Arg Arg Ile His Ser Gly Glu Lys Pro Cys

　　　　　　　　　100　　　　　　　　105　　　　　　　　110

Glu Cys Lys Glu Cys Gly Lys Leu Phe Met Trp His Thr Ala Phe Leu

　　　　　　　　　115　　　　　　　　120　　　　　　　　125

Lys His Gln Arg Leu His Ala Gly Glu Lys Leu Glu Glu Cys Glu Lys

　　　　　　　　　130　　　　　　　　135　　　　　　　　140

Thr Phe Ser Lys Asp Glu Glu Leu Arg Gly Glu Gln Lys Ile His Gln

145　　　　　　　　150　　　　　　　　155　　　　　　　　160

Glu Glu Lys Ala Tyr Trp Cys Asn Gln Cys Gly Arg Ala Phe Gln Gly

　　　　　　　　　165　　　　　　　　170　　　　　　　　175

Ser Ser Asp Leu Ile Gly His Gln Val Thr His Thr Gly Glu Lys Pro

　　　　　　　　　180　　　　　　　　185　　　　　　　　190

Tyr Glu Cys Lys Glu Cys Gly Lys Thr Phe Asn Gln Ser Ser Asp Leu

　　　　　　　　　195　　　　　　　　200　　　　　　　　205

Leu Arg His His Arg Ile His Ser Gly Glu Lys Pro Tyr Val Cys Asn

　　　　　　　　　210　　　　　　　　215　　　　　　　　220

Lys Cys Gly Lys Ser Phe Arg Gly Ser Ser Asp Leu Ile Arg His His

225　　　　　　　　230　　　　　　　　235　　　　　　　　240

Arg Val His Thr Gly Glu Lys Pro Tyr Glu Cys Pro Glu Cys Trp Lys

　　　　　　　　　245　　　　　　　　250　　　　　　　　255

Ala Phe Ser Gln Asn Ser His Leu Val Ser His Gln Arg Ile His Thr
　　　　　　　　260　　　　　　　　265　　　　　　　　270

Arg Glu Lys Pro Phe Glu Cys Ser Asn Cys Gly Lys Ala Phe Ser Gly
　　　　　　　275　　　　　　　　280　　　　　　　　285

Trp Thr Ala Phe Leu Lys His Gln Lys Leu His Ile Gly Lys Glu Phe
　　　　　290　　　　　　　　295　　　　　　　300

Glu Asp Cys Lys Ser Leu Gln Thr Gly Pro Ile Leu Ile Gly Ser Arg
305　　　　　　　　310　　　　　　　315　　　　　　　　320

Asn Leu Met Asn Ala Val Lys Leu Gly Lys Val
　　　　　　　　325　　　　　　　330

<210> 394

<211> 1099

<212> PRT

<213> Homo sapiens

<400> 394

Met Ala His Leu Gly Pro Thr Pro Pro His Ser Leu Asn Tyr Lys
1　　　　　　　5　　　　　　　10　　　　　　　15

Ser Glu Asp Arg Leu Ser Glu Gln Asp Trp Pro Ala Tyr Phe Lys Val
　　　　　　　20　　　　　　　25　　　　　　　30

Pro Cys Cys Gly Val Asp Thr Ser Gln Ile Glu Ser Glu Glu Ala Glu
　　　　　35　　　　　　　40　　　　　　　45

Val Asp Val Arg Glu Arg Glu Thr Gln Arg Asp Arg Glu Pro Lys Arg
　　　50　　　　　　　55　　　　　　　60

Ala Arg Asp Leu Thr Leu Arg Asp Ser Cys Thr Asp Asn Ser Met Gln
65　　　　　　　70　　　　　　　75　　　　　　　80

Phe Gly Thr Arg Thr Thr Thr Ala Glu Pro Gly Phe Met Gly Thr Trp

```
                     85                  90                    95
Gln Asn Ala Asp Thr Asn Leu Leu Phe Arg Met Ser Gln Gln Ala Ile
                     100                 105                   110
Arg Cys Thr Leu Val Asn Cys Thr Cys Glu Cys Phe Gln Pro Gly Lys
                     115                 120                   125
Ile Asn Leu Arg Thr Cys Asp Gln Cys Lys His Gly Trp Val Ala His
                     130                 135                   140
Ala Leu Asp Lys Leu Ser Thr Gln His Leu Tyr His Pro Thr Gln Val
145                  150                 155                   160
Glu Ile Val Gln Ser Asn Val Val Phe Asp Ile Ser Ser Leu Met Leu
                     165                 170                   175
Tyr Gly Thr Gln Ala Val Pro Val Arg Leu Lys Ile Leu Leu Asp Arg
                     180                 185                   190
Leu Phe Ser Val Leu Lys Gln Glu Glu Val Leu His Ile Leu His Gly
                     195                 200                   205
Leu Gly Trp Thr Leu Arg Asp Tyr Val Arg Gly Tyr Ile Leu Gln Asp
210                  215                 220
Ala Ala Gly Lys Val Leu Asp Arg Trp Ala Ile Met Ser Arg Glu Glu
225                  230                 235                   240
Glu Ile Ile Thr Leu Gln Gln Phe Leu Arg Phe Gly Glu Thr Lys Ser
                     245                 250                   255
Ile Val Glu Leu Met Ala Ile Gln Glu Lys Glu Gly Gln Ala Val Ala
                     260                 265                   270
Val Pro Ser Ser Lys Thr Asp Ser Asp Ile Arg Thr Phe Ile Glu Ser
                     275                 280                   285
Asn Asn Arg Thr Arg Ser Pro Ser Leu Leu Ala His Leu Glu Asn Ser
                     290                 295                   300
Asn Pro Ser Ser Ile His His Phe Glu Asn Ile Pro Asn Ser Leu Ala
305                  310                 315                   320
```

Phe Leu Leu Pro Phe Gln Tyr Ile Asn Pro Val Ser Ala Pro Leu Leu
               325   330   335

Gly Leu Pro Pro Asn Gly Leu Leu Leu Glu Gln Pro Gly Leu Arg Leu
               340   345   350

Arg Glu Pro Ser Leu Ser Thr Gln Asn Glu Tyr Asn Glu Ser Ser Glu
               355   360   365

Ser Glu Val Ser Pro Thr Pro Tyr Lys Asn Asp Gln Thr Pro Asn Arg
               370   375   380

Asn Ala Leu Thr Ser Ile Thr Asn Val Glu Pro Lys Thr Glu Pro Ala
385   390   395   400

Cys Val Ser Pro Ile Gln Asn Ser Ala Pro Val Ser Asp Leu Thr Lys
               405   410   415

Thr Glu His Pro Lys Ser Ser Phe Arg Ile His Arg Met Arg Arg Met
               420   425   430

Gly Ser Ala Ser Arg Lys Gly Arg Val Phe Cys Asn Ala Cys Gly Lys
               435   440   445

Thr Phe Tyr Asp Lys Gly Thr Leu Lys Ile His Tyr Asn Ala Val His
               450   455   460

Leu Lys Ile Lys His Arg Cys Thr Ile Glu Gly Cys Asn Met Val Phe
465   470   475   480

Ser Ser Leu Arg Ser Arg Asn Arg His Ser Ala Asn Pro Asn Pro Arg
               485   490   495

Leu His Met Pro Met Leu Arg Asn Asn Arg Asp Lys Asp Leu Ile Arg
               500   505   510

Ala Thr Ser Gly Ala Ala Thr Pro Val Ile Ala Ser Thr Lys Ser Asn
               515   520   525

Leu Ala Leu Thr Ser Pro Gly Arg Pro Pro Met Gly Phe Thr Thr Pro
               530   535   540

Pro Leu Asp Pro Val Leu Gln Asn Pro Leu Pro Ser Gln Leu Val Phe

```
      545                  550                  555                  560
Ser Gly Leu Lys Thr Val Gln Pro Val Pro Pro Phe Tyr Arg Ser Leu
                      565                  570                  575
Leu Thr Pro Gly Glu Met Val Ser Pro Pro Thr Ser Leu Pro Thr Ser
                      580                  585                  590
Pro Ile Ile Pro Thr Ser Gly Thr Ile Glu Gln His Pro Pro Pro Pro
                      595                  600                  605
Ser Glu Pro Val Val Pro Ala Val Met Met Ala Thr His Glu Pro Ser
                      610                  615                  620
Ala Asp Leu Ala Pro Lys Lys Lys Pro Arg Lys Ser Ser Met Pro Val
625                  630                  635                  640
Lys Ile Glu Lys Glu Ile Ile Asp Thr Ala Asp Glu·Phe Asp Asp Glu
                      645                  650                  655
Asp Asp Asp Pro Asn Asp Gly Gly Ala Val Val Asn Asp Met Ser His
                      660                  665                  670
Asp Asn His Cys His Ser Gln Glu Glu Met Ser Pro Gly Met Ser Val
                      675                  680                  685
Lys Asp Phe Ser Lys His Asn Arg Thr Arg Cys Ile Ser Arg Thr Glu
                      690                  695                  700
Ile Arg Arg Ala Asp Ser Met Thr Ser Glu Asp Gln Glu Pro Glu Arg
705                  710                  715                  720
Asp Tyr Glu Asn Glu Ser Glu Ser Ser Glu Pro Lys Leu Gly Glu Glu
                      725                  730                  735
Ser Met Glu Gly Asp Glu His Ile His Ser Glu Val Ser Glu Lys Val
                      740                  745                  750
Leu Met Asn Ser Glu Arg Pro Asp Glu Asn His Ser Glu Pro Ser His
                      755                  760                  765
Gln Asp Val Ile Lys Val Lys Glu Glu Phe Thr Asp Pro Thr Tyr Asp
                      770                  775                  780
```

```
Met Phe Tyr Met Ser Gln Tyr Gly Leu Tyr Asn Gly Gly Gly Ala Ser
785             790             795             800

Met Ala Ala Leu His Glu Ser Phe Thr Ser Ser Leu Asn Tyr Gly Ser
                805             810             815

Pro Gln Lys Phe Ser Pro Glu Gly Asp Leu Cys Ser Ser Pro Asp Pro
                820             825             830

Lys Ile Cys Tyr Val Cys Lys Lys Ser Phe Lys Ser Ser Tyr Ser Val
                835             840             845

Lys Leu His Tyr Arg Asn Val His Leu Lys Glu Met His Val Cys Thr
                850             855             860

Val Ala Gly Cys Asn Ala Ala Phe Pro Ser Arg Arg Ser Arg Asp Arg
865             870             875             880

His Ser Ala Asn Ile Asn Leu His Arg Lys Leu Leu Thr Lys Glu Leu
                885             890             895

Asp Asp Met Gly Leu Asp Ser Ser Gln Pro Ser Leu Ser Lys Asp Leu
                900             905             910

Arg Asp Glu Phe Leu Val Lys Ile Tyr Gly Ala Gln His Pro Met Gly
                915             920             925

Leu Asp Val Arg Glu Asp Ala Ser Ser Pro Ala Gly Thr Glu Asp Ser
                930             935             940

His Leu Asn Gly Tyr Gly Arg Gly Met Ala Glu Asp Tyr Met Val Leu
945             950             955             960

Asp Leu Ser Thr Thr Ser Ser Leu Gln Ser Ser Ser Ser Ile His Ser
                965             970             975

Ser Arg Glu Ser Asp Ala Gly Ser Asp Glu Gly Ile Leu Leu Asp Asp
                980             985             990

Ile Asp Gly Ala Ser Asp Ser Gly Glu Ser Ala His Lys Ala Glu Ala
                995             1000            1005

Pro Ala Leu Pro Gly Ser Leu Gly Ala Glu Val Ser Gly Ser Leu Met
```

1010   1015   1020
Phe Ser Ser Leu Ser Gly Ser Asn Gly Gly Ile Met Cys Asn Ile Cys

1025   1030   1035   1040
His Lys Met Tyr Ser Asn Lys Gly Thr Leu Arg Val His Tyr Lys Thr

                1045   1050   1055
Val His Leu Arg Glu Met His Lys Cys Lys Val Pro Gly Cys Asn Met

            1060   1065   1070
Met Phe Ser Ser Val Arg Ser Arg Asn Arg His Ser Gln Asn Pro Asn

            1075   1080   1085
Leu His Lys Asn Ile Pro Phe Thr Ser Val Asp

    1090   1095

<210> 395

<211> 247

<212> PRT

<213> Homo sapiens

<400> 395

Met Gly Gly Ala Gly Arg Gly Val Gly Glu Gly Arg Gly Arg Gly Gly
 1   5   10   15

Gly Gly Arg Arg Trp Arg Ala Val Met Ala Ala Gly Asp Gly Asp Val
                20   25   30

Lys Leu Gly Thr Leu Gly Ser Gly Ser Glu Ser Ser Asn Asp Gly Gly
            35   40   45

Ser Glu Ser Pro Gly Asp Ala Gly Ala Ala Ala Glu Gly Gly Gly Trp
        50   55   60

Ala Ala Ala Ala Leu Ala Leu Leu Thr Gly Gly Gly Glu Met Leu Leu
65   70   75   80

```
Asn Val Ala Leu Val Ala Leu Val Leu Leu Gly Ala Tyr Arg Leu Trp
                85                90                95
Val Arg Trp Gly Arg Arg Gly Leu Gly Ala Gly Ala Gly Ala Gly Glu
                100               105               110
Glu Ser Pro Ala Thr Ser Leu Pro Arg Met Lys Lys Arg Asp Phe Ser
                115               120               125
Leu Glu Gln Leu Arg Gln Tyr Asp Gly Ser Arg Asn Pro Arg Ile Leu
            130               135               140
Leu Ala Val Asn Gly Lys Val Phe Asp Val Thr Lys Gly Ser Lys Phe
        145               150               155               160
Tyr Gly Pro Ala Gly Pro Tyr Gly Ile Phe Ala Gly Arg Asp Ala Ser
                165               170               175
Arg Gly Leu Ala Thr Phe Cys Leu Asp Lys Asp Ala Leu Arg Asp Glu
                180               185               190
Tyr Asp Asp Leu Ser Asp Leu Asn Ala Val Gln Met Glu Ser Val Arg
                195               200               205
Glu Trp Glu Met Gln Phe Lys Glu Lys Tyr Asp Tyr Val Gly Arg Leu
            210               215               220
Leu Lys Pro Gly Glu Glu Pro Ser Glu Tyr Thr Asp Glu Glu Asp Thr
        225               230               235               240
Lys Asp His Asn Lys Gln Asp
                245
```

<210> 396

<211> 705

<212> PRT

<213> Homo sapiens

<400> 396

Met Lys Gln Glu Leu Asp Gln Ala Val Ala Thr Gln Ala Leu Trp His
1   5   10   15

Thr Leu Arg Gly Arg Leu Arg Asp Val Leu Cys Thr Pro Ala His Arg
            20   25   30

Leu Leu Gln Asp Ser Gln Asp Val Pro Val Thr Val Ala Pro Leu Arg
            35   40   45

Ala Glu Arg Val Leu Leu Phe Asp Asp Ala Leu Val Leu Leu Gln Gly
        50   55   60

His Asn Val His Thr Phe Asp Leu Lys Leu Val Trp Val Asp Pro Gly
65   70   75   80

Gln Asp Gly Cys Thr Phe His Leu Leu Thr Pro Glu Glu Glu Phe Ser
                85   90   95

Phe Cys Ala Lys Asp Ser Gln Gly Gln Ala Val Trp Gln Trp Lys Val
            100   105   110

Thr Trp Ala Val His Gln Ala Leu His Gly Lys Lys Asp Phe Pro Val
            115   120   125

Leu Gly Ala Gly Leu Glu Pro Ser Gln Pro Pro Asp Cys Arg Cys Ala
            130   135   140

Glu Tyr Thr Phe Gln Ala Glu Gly Arg Leu Cys Gln Ala Thr Tyr Glu
145   150   155   160

Gly Glu Trp Cys Arg Gly Arg Pro His Gly Lys Gly Thr Leu Lys Trp
                165   170   175

Pro Asp Gly Arg Asn His Val Gly Asn Phe Cys Gln Gly Leu Glu His
                180   185   190

Gly Phe Gly Ile Arg Leu Leu Pro Gln Ala Ser Glu Asp Lys Phe Asp
            195   200   205

Cys Tyr Lys Cys His Trp Arg Glu Gly Ser Met Cys Gly Tyr Gly Ile
210   215   220

Cys Glu Tyr Ser Thr Asp Glu Val Tyr Lys Gly Tyr Phe Gln Glu Gly
225   230   235   240

Leu Arg His Gly Phe Gly Val Leu Glu Ser Gly Pro Gln Ala Pro Gln
                    245   250   255

Pro Phe Arg Tyr Thr Gly His Trp Glu Arg Gly Gln Arg Ser Gly Tyr
                    260   265   270

Gly Ile Glu Glu Asp Gly Asp Arg Gly Glu Arg Tyr Ile Gly Met Trp
                    275   280   285

Gln Ala Gly Gln Arg His Gly Pro Gly Val Met Val Thr Gln Ala Gly
            290   295   300

Val Cys Tyr Gln Gly Thr Phe Gln Ala Asp Lys Thr Val Gly Pro Gly
305   310   315   320

Ile Leu Leu Ser Glu Asp Asp Ser Leu Tyr Glu Gly Thr Phe Thr Arg
                    325   330   335

Asp Leu Thr Leu Met Gly Lys Gly Lys Val Thr Phe Pro Asn Gly Phe
                    340   345   350

Thr Leu Glu Gly Ser Phe Gly Ser Gly Ala Gly Arg Gly Leu His Thr
            355   360   365

Gln Gly Val Leu Asp Thr Ala Ala Leu Pro Pro Asp Pro Ser Ser Thr
            370   375   380

Cys Lys Arg Gln Leu Gly Val Gly Ala Phe Pro Val Glu Ser Arg Trp
385   390   395   400

Gln Gly Val Tyr Ser Pro Phe Arg Asp Phe Val Cys Ala Gly Cys Pro
                    405   410   415

Arg Asp Leu Gln Glu Ala Leu Leu Gly Phe Asp Val Gln Ser Ser Arg
                    420   425   430

Glu Leu Arg Arg Ser Gln Asp Tyr Leu Ser Cys Glu Arg Thr His Pro
            435   440   445

Glu Asp Ser Val Gly Ser Met Glu Asp Ile Leu Glu Glu Leu Leu Gln

```
              450                 455                 460
His Arg Glu Pro Lys Ala Leu Gln Leu Tyr Leu Arg Lys Ala Leu Ser
465                 470                 475                 480
Asn Ser Leu His Pro Leu Gly Lys Leu Leu Arg Thr Leu Met Leu Thr
                  485                 490                 495
Phe Gln Ala Thr Tyr Ala Gly Val Gly Ala Asn Lys His Leu Gln Gly
                  500                 505                 510
Leu Ala Gln Glu Glu Val Lys Gln His Ala Gln Glu Leu Trp Ala Ala
                  515                 520                 525
Tyr Arg Gly Leu Leu Arg Val Ala Leu Glu Arg Lys Gly Gln Ala Leu
              530                 535                 540
Glu Glu Asp Glu Asp Thr Glu Thr Arg Asp Leu Gln Val His Gly Leu
545                 550                 555                 560
Val Leu Pro Leu Met Leu Pro Ser Phe Tyr Ser Glu Leu Phe Thr Leu
                  565                 570                 575
Tyr Leu Leu Leu His Glu Arg Glu Asp Ser Phe Tyr Ser Gln Gly Ile
                  580                 585                 590
Ala Asn Leu Ser Leu Phe Pro Asp Thr Gln Leu Leu Glu Phe Leu Asp
                  595                 600                 605
Val Gln Lys His Leu Trp Pro Leu Lys Asp Leu Thr Leu Thr Ser Asn
              610                 615                 620
Gln Arg Tyr Ser Leu Val Arg Asp Lys Cys Phe Leu Ser Ala Thr Glu
625                 630                 635                 640
Cys Leu Gln Lys Ile Met Thr Thr Val Asp Pro Arg Glu Lys Leu Glu
                  645                 650                 655
Val Leu Glu Arg Thr Tyr Gly Glu Ile Glu Gly Thr Val Ser Arg Val
                  660                 665                 670
Leu Gly Arg Glu Tyr Lys Arg Pro Trp Thr Thr Cys Cys His Phe Ser
              675                 680                 685
```

Ser Thr Trp Cys Arg Ala Pro Glu Phe Ser Thr Trp Glu Pro Arg Ser
    690   695   700

Thr

705

<210> 397

<211> 907

<212> PRT

<213> Homo sapiens

<400> 397

Met Gln Tyr Gln Cys Lys Lys Cys Asn Val Val Phe Pro Arg Ile Phe
1   5   10   15

Asp Leu Ile Thr His Gln Lys Lys Gln Cys Tyr Lys Asp Glu Asp Asp
        20   25   30

Asp Ala Gln Asp Glu Ser Gln Thr Glu Asp Ser Met Asp Ala Thr Asp
        35   40   45

Gln Val Val Tyr Lys His Cys Thr Val Ser Gly Gln Thr Asp Ala Ala
    50   55   60

Lys Asn Ala Ala Ala Pro Ala Ala Ser Ser Gly Ser Gly Thr Ser Thr
65   70   75   80

Pro Leu Ile Pro Ser Pro Lys Pro Glu Pro Glu Lys Thr Ser Pro Lys
        85   90   95

Pro Glu Tyr Pro Ala Glu Lys Pro Lys Gln Ser Asp Pro Ser Pro Pro
        100   105   110

Ser Gln Gly Thr Lys Pro Ala Leu Pro Leu Ala Ser Thr Ser Ser Asp
        115   120   125

Pro Pro Gln Ala Ser Thr Ala Gln Pro Gln Pro Gln Pro Gln Pro Pro

```
            130               135               140
Lys Gln Pro Gln Leu Ile Gly Arg Pro Pro Ser Ala Ser Gln Thr Pro
145               150               155               160
Val Pro Ser Ser Pro Leu Gln Ile Ser Met Thr Ser Leu Gln Asn Ser
                165               170               175
Leu Pro Pro Gln Leu Leu Gln Tyr Gln Cys Asp Gln Cys Thr Val Ala
                180               185               190
Phe Pro Thr Leu Glu Leu Trp Gln Glu His Gln His Val His Phe Leu
                195               200               205
Ala Ala Gln Asn Gln Phe Leu His Ser Pro Phe Leu Glu Arg Pro Met
    210               215               220
Asp Met Pro Tyr Met Ile Phe Asp Pro Asn Asn Pro Leu Met Thr Gly
225               230               235               240
Gln Leu Leu Gly Ser Ser Leu Thr Gln Met Pro Pro Gln Ala Ser Ser
                245               250               255
Ser His Thr Thr Ala Pro Thr Thr Val Ala Ala Ser Leu Lys Arg Lys
                260               265               270
Leu Asp Asp Lys Glu Asp Asn Asn Cys Ser Glu Lys Glu Gly Gly Asn
                275               280               285
Ser Gly Glu Asp Gln His Arg Asp Lys Arg Leu Arg Thr Thr Ile Thr
    290               295               300
Pro Glu Gln Leu Glu Ile Leu Tyr Glu Lys Tyr Leu Leu Asp Ser Asn
305               310               315               320
Pro Thr Arg Lys Met Leu Asp His Ile Ala Arg Glu Val Gly Leu Lys
                325               330               335
Lys Arg Val Val Gln Val Trp Phe Gln Asn Thr Arg Ala Arg Glu Arg
                340               345               350
Lys Gly Gln Phe Arg Ala Val Gly Pro Ala Gln Ser His Lys Arg Cys
                355               360               365
```

Pro Phe Cys Arg Ala Leu Phe Lys Ala Lys Ser Ala Leu Glu Ser His
370   375   380

Ile Arg Ser Arg His Trp Asn Glu Gly Lys Gln Ala Gly Tyr Ser Leu
385   390   395   400

Pro Pro Ser Pro Leu Ile Ser Thr Glu Asp Gly Gly Glu Ser Pro Gln
                405   410   415

Lys Tyr Ile Tyr Phe Asp Tyr Pro Ser Leu Pro Leu Thr Lys Ile Asp
                420   425   430

Leu Ser Ser Glu Asn Glu Leu Ala Ser Thr Val Ser Thr Pro Val Ser
                435   440   445

Lys Thr Ala Glu Leu Ser Pro Lys Asn Leu Leu Ser Pro Ser Ser Phe
                450   455   460

Lys Ala Glu Cys Ser Glu Asp Val Glu Asn Leu Asn Ala Pro Pro Ala
465   470   475   480

Glu Ala Gly Tyr Asp Gln Asn Lys Thr Asp Phe Asp Glu Thr Ser Ser
                485   490   495

Ile Asn Thr Ala Ile Ser Asp Ala Thr Thr Gly Asp Glu Gly Asn Thr
                500   505   510

Glu Met Glu Ser Thr Thr Gly Ser Ser Gly Asp Val Lys Pro Ala Leu
                515   520   525

Ser Pro Lys Glu Pro Lys Thr Leu Asp Thr Leu Pro Lys Pro Ala Thr
                530   535   540

Thr Pro Thr Thr Glu Val Cys Asp Asp Lys Phe Leu Phe Ser Leu Thr
545   550   555   560

Ser Pro Ser Ile His Phe Asn Asp Lys Asp Gly Asp His Asp Gln Ser
                565   570   575

Phe Tyr Ile Thr Asp Asp Pro Asp Asp Asn Ala Asp Arg Gly Glu Thr
                580   585   590

Ser Ser Ile Ala Asp Pro Ser Ser Pro Asn Pro Phe Gly Ser Ser Asn

```
          595                600                605
Pro Phe Lys Ser Lys Ser Asn Asp Arg Pro Gly His Lys Arg Phe Arg
          610                615                620
Thr Gln Met Ser Asn Leu Gln Leu Lys Val Leu Lys Ala Cys Phe Ser
625                630                635                640
Asp Tyr Arg Thr Pro Thr Met Gln Glu Cys Glu Met Leu Gly Asn Glu
                   645                650                655
Ile Gly Leu Pro Lys Arg Val Val Gln Val Trp Phe Gln Asn Ala Arg
                   660                665                670
Ala Lys Glu Lys Lys Phe Lys Ile Asn Ile Gly Lys Pro Phe Met Ile
          675                680                685
Asn Gln Gly Gly Thr Glu Gly Thr Lys Pro Glu Cys Thr Leu Cys Gly
          690                695                700
Val Lys Tyr Ser Ala Arg Leu Ser Ile Arg Asp His Ile Phe Ser Lys
705                710                715                720
Gln His Ile Ser Lys Val Arg Glu Thr Val Gly Ser Gln Leu Asp Arg
                   725                730                735
Glu Lys Asp Tyr Leu Ala Pro Thr Thr Val Arg Gln Leu Met Ala Gln
                   740                745                750
Gln Glu Leu Asp Arg Ile Lys Lys Ala Ser Asp Val Leu Gly Leu Thr
          755                760                765
Val Gln Gln Pro Gly Met Met Asp Ser Ser Ser Leu His Gly Ile Ser
          770                775                780
Leu Pro Thr Ala Tyr Pro Gly Leu Pro Gly Leu Pro Pro Val Leu Leu
785                790                795                800
Pro Gly Met Asn Gly Pro Ser Ser Leu Pro Gly Phe Pro Gln Asn Ser
                   805                810                815
Asn Thr Leu Thr Pro Pro Gly Ala Gly Met Leu Gly Phe Pro Thr Ser
          820                825                830
```

Ala Thr Ser Ser Pro Ala Leu Ser Leu Ser Ser Ala Pro Thr Lys Pro
　　　835　　　　　　　　840　　　　　　　845

Leu Leu Gln Thr Pro Pro Pro Pro Pro Pro Pro Pro Pro Pro Pro Pro
　　850　　　　　　　855　　　　　　　860

Ser Ser Ser Leu Ser Gly Gln Gln Thr Glu Gln Gln Asn Lys Glu Ser
865　　　　　　　870　　　　　　　875　　　　　　　880

Glu Lys Lys Gln Thr Lys Pro Asn Lys Val Lys Lys Ile Lys Glu Glu
　　　　　885　　　　　　　890　　　　　　　895

Glu Leu Glu Ala Thr Lys Pro Glu Lys His Pro
　　　　900　　　　　　905

<210> 398

<211> 412

<212> PRT

<213> Homo sapiens

<400> 398

Met Thr Phe Thr Phe Gln Ser Glu Asp Leu Lys Arg Asp Cys Gly Lys
1　　　　　　　5　　　　　　　10　　　　　　　15

Lys Met Ser His Gln His Val Phe Ser Leu Ala Met Glu Glu Asp Val
　　　　　20　　　　　　　25　　　　　　　30

Lys Thr Ala Asp Thr Lys Lys Ala Ser Arg Ile Leu Asp His Glu Lys
　　　　35　　　　　　　40　　　　　　　45

Glu Asn Thr Arg Ser Ile Cys Leu Leu Glu Gln Lys Arg Lys Val Val
　　　50　　　　　　　55　　　　　　　60

Ser Ser Asn Ile Asp Val Pro Pro Ala Arg Lys Ser Ser Glu Glu Leu
65　　　　　　　70　　　　　　　75　　　　　　　80

Asp Met Asp Lys Val Thr Ala Ala Met Val Leu Thr Ser Leu Ser Thr

```
                    85              90              95
Ser Pro Leu Val Arg Ser Pro Pro Val Arg Pro Asn Glu Ser Leu Ser
            100             105             110
Gly Ser Trp Lys Glu Gly Gly Cys Val Pro Ser Ser Thr Ser Ser Ser
            115             120             125
Gly Tyr Trp Ser Trp Ser Ala Pro Ser Asp Gln Ser Asn Pro Ser Thr
            130             135             140
Pro Ser Pro Pro Leu Ser Ala Asp Ser Phe Lys Pro Phe Arg Ser Pro
145             150             155             160
Ala Gln Pro Asp Asp Gly Ile Asp Glu Ala Glu Ala Ser Asn Leu Leu
                165             170             175
Phe Asp Glu Pro Ile Pro Arg Lys Arg Lys Asn Ser Met Lys Val Met
            180             185             190
Phe Lys Cys Leu Trp Lys Asn Cys Gly Lys Val Leu Ser Thr Ala Ala
            195             200             205
Gly Ile Gln Lys His Ile Arg Thr Ile His Leu Gly Arg Val Gly Asp
210             215             220
Ser Asp Tyr Ser Asp Gly Glu Glu Asp Phe Tyr Tyr Thr Glu Ile Lys
225             230             235             240
Leu Asn Thr Asp Ser Val Ala Asp Gly Leu Ser Ser Leu Ala Pro Val
                245             250             255
Ser Pro Ser Gln Ser Leu Ala Ser Pro Pro Thr Phe Pro Ile Pro Asp
            260             265             270
Ser Ser Arg Thr Glu Thr Pro Cys Ala Lys Thr Glu Thr Lys Leu Met
            275             280             285
Thr Pro Leu Ser Arg Ser Ala Pro Thr Thr Leu Tyr Leu Val His Thr
            290             295             300
Asp His Ala Tyr Gln Ala Thr Pro Pro Val Thr Ile Pro Gly Ser Ala
305             310             315             320
```

```
Lys Phe Thr Pro Asn Gly Ser Ser Phe Ser Ile Ser Trp Gln Ser Pro
                325              330              335
Pro Val Thr Phe Thr Gly Ile Pro Val Ser Pro Thr His His Pro Val
                340              345              350
Gly Thr Gly Glu Gln Arg Gln His Ala His Thr Val Leu Ser Ser Pro
                355              360              365
Pro Arg Gly Thr Val Ser Leu Arg Lys Pro Arg Gly Glu Gly Lys Lys
                370              375              380
Cys Arg Lys Val Tyr Gly Met Glu Asn Arg Asp Met Trp Cys Thr Ala
385              390              395              400
Cys Arg Trp Lys Lys Ala Cys Gln Arg Phe Leu Asp
                405              410
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<210> 399

<211> 314

<212> PRT

<213> Homo sapiens

<400> 399

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Met Thr Gly Ser Asn Ser His Ile Thr Ile Leu Thr Leu Asn Val Asn
1               5               10              15
Gly Leu Asn Ala Pro Ile Lys Arg His Arg Leu Ala Asn Trp Ile Lys
                20              25              30
Ser Gln Asp Pro Ser Val Cys Cys Ile Gln Glu Thr His Leu Thr Cys
                35              40              45
Arg Asp Thr His Arg Leu Lys Ile Lys Gly Trp Arg Lys Ile Tyr Gln
50              55              60
Ala Ser Gly Lys Gln Lys Lys Ala Gly Val Ala Ile Leu Val Ser Asp
```

```
        65                   70                   75                   80
Lys Thr Asp Phe Lys Pro Thr Lys Ile Lys Arg Asp Lys Glu Gly His
                     85                   90                   95
Tyr Thr Met Val Lys Gly Ser Ile Gln Gln Glu Glu Leu Thr Ile Leu
                    100                  105                  110
Asn Ile Tyr Ala Pro Asn Thr Gly Ala Pro Arg Phe Ile Lys Gln Val
                    115                  120                  125
Leu Ser Asp Val Gln Arg Asp Leu Asp Ser His Thr Leu Ile Met Gly
               130                  135                  140
Asp Phe Asn Thr Pro Leu Ser Thr Leu Asp Arg Ser Thr Arg Gln Lys
145                  150                  155                  160
Val Asn Lys His Thr Gln Glu Phe Asn Ser Ala Leu His Gln Ala Asp
                    165                  170                  175
Leu Ile Asp Ile Tyr Lys Thr Leu His Pro Lys Ser Thr Glu Tyr Thr
                    180                  185                  190
Phe Phe Ser Ala Pro His His Thr Tyr Ser Lys Ile Asp His Ile Phe
               195                  200                  205
Gly Ser Lys Ala Leu Phe Ser Lys Cys Lys Arg Thr Glu Ile Ile Thr
               210                  215                  220
Asn Cys Leu Ser Glu His Ser Ala Ile Lys Leu Glu Leu Arg Ile Lys
225                  230                  235                  240
Asn Leu Thr Gln Asn Arg Ser Thr Thr Trp Lys Leu Asn Asn Leu Leu
                    245                  250                  255
Leu Asn Asp Tyr Trp Val His Asn Glu Met Lys Ala Glu Ile Lys Met
                    260                  265                  270
Phe Phe Glu Thr Asn Glu Asn Lys Asp Thr Thr Tyr Gln Asn Leu Trp
               275                  280                  285
Asp Ala Phe Lys Ala Val Cys Thr Gly Lys Phe Ile Ala Leu Asn Ala
               290                  295                  300
```